

QTY.	DESCRIPTION	CODE	I
	<p>Fiber optical communication system for railway line network of 1750km , 15 main station ,82 way station .  The offer shall include the following items:  12 fiber cable , SDH system . One.  Dispatcher calling system for station operators. Two.  Station to station direct call “ Leased line “ . Three.  Interfaces for PABXS in main stations. Four.  Access of 16 extension ( expandable ) at each station . Five.  Power supply and Butteries for 8 hr. Operation. Six.  Spare parts for 3 years. Seven.  All installation material. Eight.  Tool and test instrument required for system installation Nine.  and maintenance (15 set ).  Equipments and test benches for Repair Center and Ten.  Training Center.  10 workshop vans. Eleven.  L. Air-condition Units for equipment rooms.  M. Training courses for 20 person at Company Origin.  N. The supplier shall under take installation Supervision  Commission Test , Training Course in Iraq , Guarantee for  one year , all operation and maintenance manuals and  software requirements .</p>	07-31-00040	1
	<p>Signalling system for 20 railway station and CTC Center include  :  Computer interlocking system for stations with operator 1.  panel.  Automatic Block System. 2.  Axle counter equipment . 3.  Out door equipment , Point machines , Track circuits and 4.  signals , and Level crossings.  Power supply , UPS , Battery for 4 hrs operation . 5.  CTC for traffic management and remote control . 6.  CAB signal system for 50 locomotive . 7.  The offer should include the following :  Spare parts for 3 years . 1.  Tools and test instrument required for system 2.  installation and maintenance ( 4 sets ) .  All installation materials . 3.  Training for 10 person at Company origin . 4.  The supplier shall undertake installation Supervision , 5.  Commission test , Training courses in Iraq ,for technical  staff and for operation staff (station masters). One year  guarantee and operation and maintenance manuals and  software requirements .</p>	07-31-00041	2
150 km	<p>Telecom. cable 8x4x1.2+2x4x1.2  P.E insulation , jelly filled  with the requirement of Heat shrinkage joint sets .</p>	07-31-00042	3
100 km	<p>Telecom. cable 7x4x1.4  P.E insulation , jelly filled  with the requirement of Heat shrinkage joint sets .</p>	07-31-00043	4
5 km	<p>Telecom. cable 150x2x0.9  P.E insulation , jelly filled  with the requirement of Heat shrinkage joint sets .</p>	07-31-00044	5

75 km	<b>Signalling cable 19C 1/0.85 mm with the requirements of join sets .</b>	07-31-00045	<b>6</b>
4	<b>Microcomputer Unit JM25XX (for SDT system ) (GEC signals Ltd.)</b>	07-31-00046	<b>7</b>
2	<b>Digivision Video monitor ( CD14 ) (GEC signals Ltd.)</b>	07-31-00047	<b>8</b>
2	<b>Color display controller ( TDS 4200 )</b>	07-31-00048	<b>9</b>
20	<b>Integrated processor Z8681</b>	07-31-00049	<b>10</b>
40	<b>NC. Battery 9.6V. 450_600 mAhr (Robert Bosch GmbH ) g697 322 401</b>	07-31-00050	<b>11</b>
10	<b>Signal Level meter ( selective freq , Imp. )</b>	07-31-00051	<b>12</b>
10	<b>Cable Finder (rout &amp; depth )</b>	07-31-00052	<b>13</b>
	<b>Carrier frequency transmission system spare part ( Origin WSSB ,East Germany )</b>	07-31-00053	<b>14</b>
8	B 1653.1		
10	B 2511		
20	B 1404		
6	B 2502		
5	B 2501		
5	B 2503		
5	B 2504		
5	B 1425		
5	B 1451		
5	B 1452		
5	B 1453		
5	B 1454		
5	B 1455		
5	B 1456		
5	B 1457		
5	B 1468		
5	B 1459		
5	B 1460		
5	B 1461		
5	B 1438		
5	B 1445		
5	B 2505		
5	B 2526		
5	B 2431		
5	B 1458		
5	B 1469		

<p><b>10</b></p>	<p><b>Diesel Generator 100 KVA ( for Indoor Installation ) 1st.</b>  <b>Engin : 1500 rpm or less</b>  <b>6 cylinder ,Gas Oil fuel</b>  <b>Alternator : Self excitation , Brush less</b>  <b>3 ph , 380v. , 50HZ , 0.8 P.F or</b>  <b>more Direct coupling with</b>  <b>foundation of engine AVR</b>  <b>Regulation.</b>  <b>Class F insulation</b>  <b>Automatic operation , include</b>  <b>Changeover switch of 400 AMP</b>  <b>spare parts for 3 years</b>  <b>Two year guarantee</b>  <b>O&amp;M manuals</b>  <b>Generation : 1998 and above</b></p>	<p>07-31-00054</p>	<p><b>15</b></p>
<p><b>15</b></p>	<p><b>B. Diesel Generators 50 KVA ( for Indoor Installation )</b>  <b>“Specified as above except for change over switch</b>  <b>of 250 AMP. “</b></p>		

**ELECTRICAL PARTS (CHECK LOCO.) CKD.**

<b>QUT. PER- 50LOC.</b>	<b>DES.</b>	<b>CODE</b>	<b>ITEM</b>
<b>200</b>	<b>Carbon brush for dynamo</b>	07-31-00140	<b>1.</b>
<b>100</b>	<b>Carbon brush for exciter .</b>	07-31-00141	<b>2.</b>
<b>2001m</b>	<b>Cable SY 10 SEQ mm.</b>	07-31-00142	<b>3.</b>
<b>2001m</b>	<b>Cable SY 25 SEQ mm.</b>	07-31-00143	<b>4.</b>
<b>2001m</b>	<b>Cable SY 1.5 SEQ mm.</b>	07-31-00144	<b>5.</b>
<b>50 set</b>	<b>Battery (150) AH,75 Cells.</b>	07-31-00145	<b>6.</b>
<b>10 ton</b>	<b>Electrolyte type A</b>	07-31-00146	<b>7.</b>
<b>1001m</b>	<b>Cable (SVU) 300-95 SQ mm.</b>	07-31-00147	<b>8.</b>
<b>1001 m</b>	<b>Cable (SY) , 70 SQmm.</b>	07-31-00148	<b>9.</b>
<b>50</b>	<b>Contactora (SD11).</b>	07-31-00149	<b>10.</b>
<b>50</b>	<b>Main contact .</b>	07-31-00150	<b>11.</b>
<b>50</b>	<b>Contact Strip.</b>	07-31-00151	<b>12.</b>
<b>50</b>	<b>Contactora SC11.</b>	07-31-00152	<b>13.</b>
<b>50</b>	<b>Contactora SG132/ IRED.</b>	07-31-00153	<b>14.</b>
<b>50</b>	<b>Contactora S 613 T-1/1</b>	07-31-00154	<b>15.</b>
<b>40</b>	<b>Contactora SE 11.</b>	07-31-00155	<b>16.</b>
<b>50</b>	<b>Contactora SA 781.</b>	07-31-00156	<b>17.</b>
<b>50</b>	<b>Aux - Contactora .</b>	07-31-00157	<b>18.</b>
<b>40</b>	<b>Relay RA 441</b>	07-31-00158	<b>19.</b>
<b>50</b>	<b>Relay RA 227</b>	07-31-00159	<b>20.</b>
<b>50</b>	<b>Relay RA 222</b>	07-31-00160	<b>21.</b>
<b>40</b>	<b>Relay RA 110</b>	07-31-00161	<b>22.</b>
<b>30</b>	<b>Relay RD 11</b>	07-31-00162	<b>23.</b>
<b>30</b>	<b>Relay RD 11</b>	07-31-00163	<b>24.</b>
<b>50</b>	<b>Voltage Regulator</b>	07-31-00164	<b>25.</b>
<b>50</b>	<b>Relay RE21</b>	07-31-00165	<b>26.</b>
<b>20</b>	<b>Resistor 65 ohm.</b>	07-31-00166	<b>27.</b>
<b>20</b>	<b>Resistor 27 ohm.</b>	07-31-00167	<b>28.</b>
<b>50</b>	<b>Resistor 11ohm.</b>	07-31-00168	<b>29.</b>
<b>20</b>	<b>Resistor 11 ohm.</b>	07-31-00169	<b>30.</b>
<b>50</b>	<b>Resistor 0.35 ohm.</b>	07-31-00170	<b>31.</b>
<b>20</b>	<b>Resistor 100 ohm.</b>	07-31-00171	<b>32.</b>
<b>20</b>	<b>Resistor 65 ohm.</b>	07-31-00172	<b>33.</b>
<b>20</b>	<b>Resistor 200 ohm.</b>	07-31-00173	<b>34.</b>

<b>QUT. PER- 50LOC.</b>	<b>DES.</b>	<b>CODE</b>	<b>ITEM</b>
20	Resistor 9 ohm.	07-31-00240	35.
50	Resistor 330 ohm.	07-31-00241	36.
50	Resistor element	07-31-00242	37.
50	Circuit Breaker 0.5A	07-31-00243	38.
100	Silver Contactor leges	07-31-00244	39.
100	Silver Contactor	07-31-00245	40.
50	Timing Relay CR/325	07-31-00246	41.
50	Timing Relay CR4 B01	07-31-00247	42.
50	Timing Relay CR4 B03	07-31-00248	43.
50	Timing Relay CR4 B10	07-31-00249	44.
30	Exciter and charging Dynamo	07-31-00250	45.
20	(1-36-810448) Traction Motor (TE006) with gear box.	07-31-00251	46.
50	Breaker 1AMP.	07-31-00252	47.
50	Diode Silcon	07-31-00253	48.
50	Breaker 10 AMP.	07-31-00254	49.
50	Breaker 25 AMP.	07-31-00255	50.
30	Push button T6A green .	07-31-00256	51.
50	Push button T6A Black.	07-31-00257	52.
50	Push button T6G Red .	07-31-00258	53.
50	Push button T6C green .	07-31-00259	54.
50	Reverser Lever	07-31-00260	55.
20	Load Regulator	07-31-00261	56.
50	Head Light Switch .	07-31-00262	57.
50	(Start – Stop) Switch .	07-31-00263	58.
50	Control Switch .	07-31-00264	59.
50	Traction motor switch .	07-31-00265	60.
50	Switch .	07-31-00266	61.
50	Switch Box AJR .	07-31-00267	62.
50	Selector motor with gearing	07-31-00268	63.
100	Carbon brush .	07-31-00269	64.
50	Resistor Box .	07-31-00275	65.
50	Valve EV 51/1	07-31-00276	66.
50	Valve EV 51/11	07-31-00277	67.
50	Valve (110) voits	07-31-00278	68.
30	Set of Signal Light .	07-31-00279	69.

<b>QUT. PER- 50LOC.</b>	<b>DES.</b>	<b>CODE</b>	<b>ITEM</b>
50	Ammeter 04 KA DP .	07-31-00340	70.
50	Battery Voltmeter .	07-31-00341	71.
50	Battery Ammeter .	07-31-00342	72.
150	Bulb (125V) , 15 watt .	07-31-00343	73.
150	Bulb (110V) , 550 watt .	07-31-00344	74.
150	Bulb (120V) , 60 watt .	07-31-00345	75.
150	Bulb (120V) , 40 watt .	07-31-00346	76.
100	Head Light .	07-31-00347	77.
100	Side wall Light .	07-31-00348	78.
50	Pre – lub . Elc Motor .	07-31-00349	79.
50	Speedo meter with Read Record (RT9) .	07-31-00350	80.
50	Transmitter	07-31-00351	81.
200	Brush carbon for transmitter .	07-31-00352	82.
50	Lamp (STN).	07-31-00353	83.
50	Ammeter	07-31-00354	84.
50	Reverser	07-31-00355	85.
60	Pinion .	07-31-00356	86.
*15,800	Coller element .	07-31-00357	87.

\* amended 11 May 2000

**SPARE PARTS FOR MLW LOCOMOTIVES  
WITH DIESEL ENGINE 25 IC ALCO.**

<b>ITEM</b>	<b>CODE</b>	<b>DR NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
1-	07-31-00440	DRP-5701	Light weight Bogies complete with traction motors and Brakes	4
2-	07-31-00441	DRP-5693	Wheel axle,gear and Journal boxes complete	12
3-	07-31-00442	DRP-5701	Shock Absorber Lateral	114
4-	07-31-00443	DRP-5701	Block truck center Pin	80
5-	07-31-00444	DRP-5701	Shock absorber Rotational	120
6-	07-31-00445	DRP-5701	Bearing metalastik Mi × 01 × 40 ( brown )	240
7-	07-31-00446	DRP-5701	Bearer metalastik center pin block (Mi × 01 × 60 ) white	240
8-	07-31-00447	GH-3214-4S UP10	Cylinder VAH 8× 8 Assy. Less Push rod	38
9-	07-31-00448	GH-3214-4S UP10	Brake cylinder assy. ( UAH ) × 8	240
10-	07-31-00449	GEG-30310 A	Bearing, Traction botor, Support [ Axle Lining 7 ¼ “ STD ]	960
11-	07-31-00450	DRP-14815 D	Steel capped piston straight skirt 12.5 : 4	350
12-	07-31-00451		12- cylinder engine complete with turbo charger . 251 C	10
13-	07-31-00452	DRP-14899	Governor assy .	20
14-	07-31-00453	DRP-12505 H	Pump water with gear	20
15-	07-31-00454	DRP-12505 H	Shaft with wear sleeve	80
16-	07-31-00455	DRP-12505 H	Key, impeller to shaft ( 3/8 × 1 )	480
17-	07-31-00456	DRP-12505 H	Key, gear to shaft ( ½ × 2 )	480
18-	07-31-00457	DRP-14428 A	Tuel injection Pump	120
19-	07-31-00458	DRP-13916	Pump hand Piming Lub. oil	20
20-	07-31-00459	DRP-14925	Cran K shaft	5
21-	07-31-00460	DRP-5607	Shaft assy. Engine . compressor	80
22-	07-31-00461	DRP-15418	Turbocharger	20
23-	07-31-00462	DRP-15418	Main casing	32
24-	07-31-00463	DRP-5698	Coupler ( Automatic )	40
25-	07-31-00464	DRP-5562 A	Blower assy. Traction motor	80

ITEM	CODE	DR NO.	DESCRIPTION	QTY
26-	07-31-00540	DRP-5695	Radiator ( R.S. )	80
27-	07-31-00541	DRP-5695	Radiator ( L.S )	80
28-	07-31-00542	DRP-5695	Core	32
29-	07-31-00543	DRP-5697	Tanko meter acab. only	31
30-	07-31-00544	DRP-5391	Gaug water level 150 psi	40
31-	07-31-00545	DRP-1847 A	GLO-Rod type Gauge with shut . off valve	80
32-	07-31-00546	DRP-5700	Shaft assy . Traction motor blower	200
33-	07-31-00547	DRP-5700	Element coupling Rubber tire ( 2 perset )	400
34-	07-31-00548	DRP-5700	Hub tapered Engine – Blower drive	200
35-	07-31-00549	DRP-5700	Shaft engine to biower	200
36-	07-31-00550	GH 3208-26 SUP 2	26-C type brake valve	160
37-	07-31-00551	GH 3208-26 SUP 2	Brake valve Portion assy.	160
38-	07-31-00552	GH 3207-6 SUP 1	SA-26 Inde pendent brake valav portion assy.	160
39-	07-31-00553	GH 3208-26 SUP 2	Kit complete rubber parts for overhanl maintenance ( 26-C )	160
40-	07-31-00554	GH 3231-12	JI – Type realy valve	63
41-	07-31-00555	GH 3216-35	A1 – charging cut – off pilot valve saay.	40
42-	07-31-00556	GH 3230-26 SUP 1	( P2A ) Brake application valve	80
43-	07-31-00557	GH-3213-1	( MU-2A ) valve assy.	20
44-	07-31-00558	DRP-3735 A	Element filter	80
45-	07-31-00559	DRP-5460	Valve automatic Drain	160
46-	07-31-00560	GH-3202-2-SUP2	3- CDCL AIR compressor – westing house	20
47-	07-31-00561	GH-3202-2	Oil pressure indicator assy.	40
48-	07-31-00562	DRP-5607	Hub and flanged sleeve assy. keyed	120
49-	07-31-00563	DRP-5607	Hub keyed	80
50-	07-31-00564	DRP-5607	Sleeve flanged	100
51-	07-31-00565	DRP-5607	Huband flanged sleeve assy. Not keyed	120



**SPARE PARTS FOR MLW LOCOMOTIVES**  
**Electrical Parts**

ITEM	CODE	DR NO.	DESCRIPTION	QTY
52-	07-31-00640	GEG-30306A	Generator model Gt 581 J 1	6
53-	07-31-00641	10-GEG-30311 A	Traction motor model GE 161 PA 10 Exc.	30
54-	07-31-00642	PIGEG-30311 A	Pinion 19 Teeth. Grade M.	150
55-	07-31-00643	GEG-30316	Auxiliary generator and Excitor Generator	25
56-	07-31-00644	GEG-30084	Controller type 17 KCQ 92 F2	40
57-	07-31-00645	GEG-7282 E	Contactor type 17 CM 55 A 5 A	50
58-	07-31-00646	GEG-30050 A	Contactor type 17 P2 BC3	25
59-	07-31-00647	GEG-7747 G	Contactor MODEL 17 CM 57 A 9	50
60-	07-31-00648	GEG-9343 E	Interlock type E 17 AF 41 A 1	25
61-	07-31-00649	GEG-3605 D	Contactor type CR 2800-1607-F 7 H SLLP	50
62-	07-31-00650	GEG-7214 B	Contactor type 17 CM 53 B 7	50
63-	07-31-00651	GEG-2791 F	Interlock type 17 AF 14 H2	10
64-	07-31-00652	GEG-30018 A	Relay model 17 lv 66 J 10	60
65-	07-31-00653	GEG-30018 A	Relay type 17 LV 66 AM 33	70
66-	07-31-00654	GEG-30018 A	Relay type 17 LV 66 BY 20	70
67-	07-31-00655	GEG-9440 D	Relay type 17 LV 68 E 2	70
68-	07-31-00656	GEG-30094	Voltage Regulator model 17 FH 20 BLON	25
69-	07-31-00657	GEG-15146 E	Card ( BN ) type 17 FC 114 E2	25
70-	07-31-00658	GEG-1514 G	Card model 17 FC 175 H 1	25
71-	07-31-00659	GEG-30135	Excitation control panel model 17 fl 14 L 2	25
72-	07-31-00660	GEG-23323	Card model 17 C 25 B 1	25
73-	07-31-00661	GEG-30063	Switch – Engine control type SB-G ( ECS )	40
74-	07-31-00662	GEG – 30075	Card model 17 fc187 AQ1	25
75-	07-31-00663	GEG – 23370	Card model 17 fc188 C1	25
76-	07-31-00664	GEG – 23325	Card model 17 fc254 D1	50
77-	07-31-00665	GEG – 30045	Card model 17 fc266 A2	25
78-	07-31-00666	GEG – 30043	Card model 17 fc200 D1	25
79-	07-31-00667	GEG – 30083	Speed – Event Panal model 17 fl 11 C 11 N	25
80-	07-31-00668	GEG – 30080	Card model 17 fc 357 A2	50
81-	07-31-00669	GEG – 30079	Card model 17 fc 356 B1	25

<b>ITEM</b>		<b>DR NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
82-	07-31-00740	<b>DRP – 5592</b>	Panel assy . Radiator fan Delad 10	25
83-	07-31-00741	<b>GEG – 30015</b>	Panel GE 482 A 51661(G)	20
84-	07-31-00742	<b>GEG – 30017</b>	Panel type 17 FR 202 A1	20
85-	07-31-00743	<b>GEG – 30082</b>	Resistor type E 17 EM 49 K1	20
86-	07-31-00744	<b>GEG - 30019</b>	Resistor Generator Field ( GRF ) model 17 FR 101 A1	25
87-	07-31-00745	<b>GEG - 30017 A</b>	Resistor Generator voltage Divider model 17 FR 4 A 4	20
88-	07-31-00746	<b>GEG - 30018 A</b>	Resistor oscillating volt model 17 FR 45 B 2	15
89-	07-31-00747	<b>GEG - 30011</b>	Panel	20
90-	07-31-00748	<b>GEG - 30065</b>	Stabelzeing ESTHB model 17 FM 112 B 817 FM 2027	20
91-	07-31-00749	<b>DRP - 6169</b>	Fuel booster Pump model 5 BC 74 AB 2074 A	25
92-	07-31-00750	<b>GEG - 30093</b>	Motor Crankcase Exhanst	25
93-	07-31-00751		Motor for Pre lubricating Pnmp 1 I	25
94-	07-31-00752	<b>GEG – 12506 B</b>	Reverser model 17 DP 22 A1	25
95-	07-31-00753	<b>GEG-30134</b>	Card model 17FC935AI	25
96-	07-31-00754	<b>GEG-30063</b>	Switch – Head Light – type ( ESB ) – g[HLPS] [ECS]	40
97-	07-31-00755	<b>DRP-5691</b>	Engine starts switch .	25
98-	07-31-00756		MU Engine – Stop switch .	25
99-	07-31-00757		Battery Switch .	20
100-	07-31-00758		Ground Relay cut – off switch .	5
101-	07-31-00759		Switch .	25
102-	07-31-00760		Motor cut – out switch .	15
103-	07-31-00761		Switch .	15
104-	07-31-00762		Switch Pressure – TACHO Brake .	10
105-	07-31-00763	<b>DRP - 5697</b>	Switch .	25
106-	07-31-00764		Switch Low – Water cut off .	10
107-	07-31-00765		Switch Toggle .	25
108-	07-31-00766		Switch – Pressure – Differential .	15
109-	07-31-00767		Resistor .	20
110-	07-31-00768		Resistor .	15
111-	07-31-00769		Rectifier .	10
112-	07-31-00770	<b>DRP - 5697</b>	Switch ,Hot – Plate ( ON – OFF ) .	20
113-	07-31-00771	<b>DRP - 5697</b>	Panel switch 8 Light .	25

<b>ITEM</b>	<b>CODE</b>	<b>DR NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
114-	07-31-00840	DRP - 5697	Panel , Circuit Breaker .	20
115-	07-31-00841	DRP - 5697	Circuit Breaker 15AR ( PMFPB – AGFTEB – LPB2 – MCB )	25
116-	07-31-00842	DRP - 5697	Circuit Breaker 30AMP( LBI – FPB – HLPB ) .	25
117-	07-31-00843		Circuit Breaker 150AMP( MB2 – HLP ) .	25
118-	07-31-00844		Circuit Breaker 200AMP MB1 – HLP .	25
119-	07-31-00845	DRP - 5697	Switch Generator Field .	40
120-	07-31-00846		Time delay AGASTAT BUS – BAR ( ESNA 7022 RD )	25
121-	07-31-00847		Time delay AGASTAT BUS – BAR ( ESNA 7012 RC )	25
122-	07-31-00848		Relay .	20
123-	07-31-00849		Detector Fire .	20
124-	07-31-00850	DRP –5415	Switch Control Air Pressure ( 20-180 ) PSI ( 10-30 ) PSI differential .	50
125-	07-31-00851	DRP –5420	Switch Temperature control (0-225 ) F	50
126-	07-31-00852	DRP - 5488	Valve assy. Solenoid .	20
127-	07-31-00853	DRP - 5786	Valve solenoid four way Relay with bracket .	20
128-	07-31-00854	GEG–30051A	Axle alternator and drive shaft model 17MM24PF2	20
129-	07-31-00855	GEG-12896B	Tachometer Generator .	20
130-	07-31-00856		Transformer TET.	20
131-	07-31-00857		Reactor , Current Control[ ACCR ] TAP	20
132-	07-31-00858		Battery set ALCAD type D23 TAP .	25
133-	07-31-00859		Cable for battery (250) MCM (1001) VOLT (6-20) MN Length	400M.
134-	07-31-00860	DRP-5697	Tachometer .	25
135-	07-31-00861	DRP-5697	Switch Attendant call	20
136-	07-31-00862	DRP-5697	Switch engine room light	20
137-	07-31-00863	DRP-5697	Switch Stop –Run	25
138-	07-31-00864	DRP-5697	Push Button Satety Control	2
139-	07-31-00865	DRP-5697	Resistor 25 watt (0.15) HRS{OHMITE NO-0364	20
140-	07-31-00866	DRP-5697	Resistor 100 watt 150 OHM{OHMITE NO-0959	15

<b>ITEM</b>	<b>CODE</b>	<b>DR NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
141-	07-31-00940	DRP-5697	Switch Focot, vigiliance cotrol 1053	25
142-	07-31-00941	DRP-5697	Loadmeter	50
143-	07-31-00942	DRP-5697	Ammeter Battery	50
144-	07-31-00943		Speed Recorder Hasler R79 (RT9)	25
145-	07-31-00944		Speed indicator Hasler A 16 (A16)	25
146-	07-31-00945		Transmitter	50
147-	07-31-00946		Connector for cable	

**SPARE PARTS FOR ( MACOSA LOCOMOTIVES ) SPANISH - TYPE  
J 26 CW/ AC , DESIEL ENGINE TYPE ( GM – 16 – 645E )**

	<b>CODE</b>	<b>PART LIST P. L</b>	<b>DESCRIPTION</b>	<b>QTY</b>	
<b>1</b>	07-31-01040	<b>100-4-48</b>	<b>ENGINE ( 16-645E )</b>	<b>10</b>	
<b>2</b>	07-31-01041	<b>108-10-1</b>	<b>PISTON ASSY.</b>	<b>320</b>	
<b>3</b>	07-31-01042	<b>108-10-3</b>	<b>RING SET</b>	<b>320</b>	
<b>4</b>	07-31-01043	<b>107-1-1</b>	<b>ROD ASSY. ( FORK)</b>	<b>40</b>	
<b>5</b>	07-31-01044	<b>107-1-9</b>	<b>ROD ASSY.(BLADE)</b>	<b>40</b>	
<b>6</b>	07-31-01045	<b>107-1-10</b>	<b>BEARING UPPER,CONNECTING ROD</b>	<b>320</b>	
<b>7</b>	07-31-01046	<b>107-1-11</b>	<b>BEARING LOWER, CONNCTING ROD</b>	<b>320</b>	
<b>8</b>	07-31-01047	<b>107-1-12</b>	<b>CARRIER</b>	<b>80</b>	
<b>9</b>	07-31-01048	<b>107-1-13</b>	<b>BEARING – INSERT</b>	<b>320</b>	
<b>10</b>	07-31-01049	<b>107-1-14</b>	<b>PIN</b>	<b>40</b>	
<b>11</b>	07-31-01050	<b>107-1-16</b>	<b>WASHER , THRUST</b>	<b>320</b>	
<b>12</b>	07-31-01051	<b>107-1-17</b>	<b>RING – SNAP</b>	<b>320</b>	
<b>13</b>	07-31-01052	<b>104-2-11</b>	<b>GASKET , HANDHOLE COVER</b>	<b>160</b>	
<b>14</b>	07-31-01053	<b>160-1-7</b>	<b>GASKET, HOUSING TO CRANKCASE</b>	<b>60</b>	
<b>15</b>	07-31-01054	<b>158-1-10</b>	<b>GASKET, HOUSING TO CRANKCASE</b>	<b>60</b>	
<b>16</b>	07-31-01055	<b>106-1-1</b>	<b>HEAD ASSY.</b>	<b>320</b>	
<b>17</b>	07-31-01056	<b>106-2-7</b>	<b>GUID ,EXHAUST VALVE</b>	<b>320</b>	
<b>18</b>	07-31-01057	<b>106-2-8</b>	<b>VALVE , EXHAUST</b>	<b>320</b>	
<b>19</b>	07-31-01058	<b>106-2-10</b>	<b>LOCK , VALVE</b>	<b>640</b>	
<b>20</b>	07-31-01059	<b>106-2-11</b>	<b>SEAT , SPRING</b>	<b>320</b>	
<b>21</b>	07-31-01060	<b>106-2-12</b>	<b>RING SEAT , CYLINDER HEAD</b>	<b>80</b>	
<b>22</b>	07-31-01061	<b>106-2-24</b>	<b>LINER ASSY.</b>	<b>320</b>	
<b>23</b>	07-31-01062	<b>106-3-30</b>	<b>SEAL , LINER TOP GROOVE</b>	<b>600</b>	
<b>24</b>	07-31-01063	<b>106-3-31</b>	<b>SEAL , LINER , LOWER GROOVE</b>	<b>600</b>	
<b>25</b>	07-31-01064	<b>F118-3-1</b>	<b>CRANKSHAFT-ENGINE – STANDARD</b>	<b>5</b>	
<b>26</b>	07-31-01065	<b>F118-3-8</b>	<b>COLLAR- THRUST – STANDARD THICKNESS</b>	<b>60</b>	
<b>27</b>	07-31-01066	<b>F118-3-9</b>	<b>BEARING –MAIN – FRONT AND INTERMDIAT( UPPER)</b>	<b>140</b>	
<b>28</b>	07-31-01067	<b>F118-3-10</b>	<b>BEARING –MAIN–FRONT &amp; INTERMEDIATE (LOWER)</b>	<b>140</b>	
<b>29</b>	07-31-01068	<b>F118-3-11</b>	<b>BEARING –MAIN– CENTER ( UPPER )</b>	<b>40</b>	
<b>30</b>	07-31-01069	<b>F118-3-12</b>	<b>BEARING–MAIN–CENTER ( LOWER )</b>	<b>40</b>	
<b>31</b>	07-31-01070	<b>F118-3-13</b>	<b>BEARING –MAIN– REPAIR-( UPPER )</b>	<b>20</b>	
<b>32</b>	07-31-01071	<b>F118-3-14</b>	<b>BEARING –MAIN– REAR- ( LOWER )</b>	<b>20</b>	
<b>33</b>	07-31-01072	<b>113-1-5</b>	<b>BUSHING , ROCKER ARM</b>	<b>160</b>	
<b>34</b>	07-31-01073	<b>113-1-9</b>	<b>RACE INNER</b>	<b>160</b>	
<b>35</b>	07-31-01074	<b>113-1-14</b>	<b>SPRING BUTTON RETAINING</b>	<b>160</b>	
<b>36</b>	07-31-01075	<b>113-1-15</b>	<b>BUTTON INJECTOR</b>	<b>160</b>	
<b>37</b>	07-31-01076	<b>113-1-16</b>	<b>BRIDGE EXHAUST VALVE</b>	<b>160</b>	
<b>38</b>	07-31-01077	<b>113-2-4</b>	<b>SEAT SPRING</b>	<b>160</b>	
<b>39</b>	07-31-01078	<b>113-2-6</b>	<b>BUTTON BRIDGE</b>	<b>160</b>	
<b>40</b>	07-31-01079	<b>113-2-7</b>	<b>ADJUSTER ASSY . LASH</b>	<b>160</b>	
<b>41</b>	07-31-01080	<b>113-1-23</b>	<b>LINE ASSY . OIL ROCKER ARM SHAFT</b>	<b>80</b>	
<b>42</b>	07-31-01081	<b>113-1-24</b>	<b>GASKET LUBE OIL LINE</b>	<b>160</b>	
<b>43</b>	07-31-01082	<b>F106-2-23</b>	<b>KIT, GASKET , CYLINDER HEAD TO CYLINDER LINER</b>	<b>800</b>	
<b>44</b>	07-31-01083	<b>166-24-1</b>	<b>GOVERNOR ASSY .</b>	<b>10</b>	
<b>45</b>	07-31-01084	<b>166-28-221</b>	<b>DIAPHRAGM .. LUB . OIL</b>	<b>80</b>	
<b>46</b>	07-31-01085	<b>166-28-223</b>	<b>SPRING .. DIAPHRAGM</b>	<b>80</b>	
<b>47</b>	07-31-01086	<b>166-28-226</b>	<b>GASKET ... SIDE PLATE</b>	<b>80</b>	
<b>48</b>	07-31-01087	<b>166-24-11</b>	<b>SHAFT ... DRIVE</b>	<b>40</b>	
<b>49</b>	07-31-01088	<b>170-3-15</b>	<b>GASKET , COVER ... SHAFT DRIVE</b>	<b>80</b>	

ITEM	CODE	PART LIST P. L	DESCRIPTION	QTY	
50	07-31-01140	144-2-6	TUBE ASSY. WATER INLET	160	
51	07-31-01141	144-2-10	GASKET , MANIFOLD TO WATER INTEL	160	
52	07-31-01142	144-2-11	SEAL, CYLINDER LINER TO ATER INLET	160	
53	07-31-01143	144-5-1	PUMP ASSY , WATER	20	
54	07-31-01144	144-5-3	GASKET	60	
55	07-31-01145	144-5-12	GASKET ,ELBOW TO PUMP	60	
56	07-31-01146	146-1-19	KIT , SEAL	500	
57	07-31-01147	146-1-21	SEAL , OUTER	500	
58	07-31-01148	146-1-22	SEAL , INNER	500	
59	07-31-01149	146-1-24	GASKET	500	
60	07-31-01150	146-1-25	GASKET	500	
61	07-31-01151	146-2-29	SHAFT , PUMP	60	
62	07-31-01152	146-2-30	KEY	60	
63	07-31-01153	146-2-31	KEY	60	
64	07-31-01154	146-2-23	BEARING , RALL	60	
65	07-31-01155	146-2-24	BEARING , RALL	60	
66	07-31-01156	148-1-10	LINE ASSY , FUEL OIL – MANIFOLD TO INJECTOR	80	
67	07-31-01157	133-1-1	PUMP ASSY - BOOSTER	20	
68	07-31-01158	133-1-5	GASKET, MOTOR TO PUMP	60	
69	07-31-01159	134-10-1	TUBE,OIL–PISTON COOLING	80	
70	07-31-01160	134-10-2	GASKET	*	
71	07-31-01161	111-2-1	INJECTOR ASSY , FUEL	80	
72	07-31-01162	111-2-10	SEAL	320	
73	07-31-01163	111-2-13	ELEMENT , FILTER , STAINLESS STEEL MESH	1200	
74	07-31-01164	111-3-23	TIP ASSY	160	
75	07-31-01165	111-3-28	VALVE , CHECK	160	
76	07-31-01166	111-4-1	KIT	160	
77	07-31-01167	150-1-12	VALVE , RELIEF , 5 PSI	60	
78	07-31-01168	150-1-13	VALVE , RELIEF , 60 PSI	60	
79	07-31-01169	150-1-17	ELEMENT , FUEL FILTER- SPIN ON	1600	
80	07-31-01170	150-1-10	BOWL , GLASS	40	
81	07-31-01171	159-22-45	KIT , COMPLETE , REPAIR DETECTOR ASSY .	120	
82	07-31-01172	159-2-4	HOSE ASSY.	120	
83	07-31-01173	159-2-5	HOSE ASSY.	120	
84	07-31-01174	159-2-6	TUBE –ASSY	120	
85	07-31-01175	F100-7-15	LNINSERT , LOWER , LINER	320	
86	07-31-01176	F124-6-1	COUPLING ASSY .. ACCESSORY DRIVE	60	
87	07-31-01177	F136-1-35	SEAL .. PISTON COOLING AND BEARING STRAINER	160	
88	07-31-01178	F136-2-39	SEAL. .RING –SCAVENGING OIL STRAINER	160	
89	07-31-01179	F136-2-47	GASKET ..COVER	160	
90	07-31-01180	F159-22-1	DETECTOR ASSY.	20	
91	07-31-01181	F185-2-5	GASKET .. SUPPORT TO CRANKCASE , BLOWER	60	
92	07-31-01182	F185-2-6	GASKET .. BLOWER TO SUPPORT	60	
93	07-31-01183	F185-2-7	GASKET .. BLOWER TO DRIVE HOUSING.	60	
94	07-31-01184	F185-5-53	COVER GASKET	60	

\* amended 11 may 2000

**SPARE PARTS FOR ( TRUCK ) – MACOSA LOCO. TYPE J 26 CW / AC**

<b>ITEM</b>	<b>CODE</b>	<b>PART LIST P. L</b>	<b>DESCRIPTION</b>	<b>QTY</b>	
1	07-31-01240	T-00-1-00	TRUCK GENERAL ASSY . V= MACOSA	4	
2	07-31-01241	T-02-3-04	CENTER WEAR PLATE.	80	
3	07-31-01242	T-02-3-05	RING HALF- CENTER PLATE	160	
4	07-31-01243	T-03-4-05	SHOE HOLDER	24	
5	07-31-01244	T-03-4-06	BRAKE – HANGER	24	
6	07-31-01245	T-03-5-55	CYLINDER – AIR BRAKE COMPLETE	40	
7	07-31-01246	T-03-5-56	CYLINDER – AIR BRAKE COMPLETE	40	
8	07-31-01247	T-03-5-57	CYLINDER –AIR BRAKE COMPLETE –CENTRAL RIGHT	20	
9	07-31-01248	T-03-5-58	CYLINDER – AIR BRAKE COMPLETE - CENTRAL LEFT	20	
10	07-31-01249	T-04-7-08	FLANG – SWIVEL – ½”	24	
11	07-31-01250	T-04-7-09	INSERT – SWIVEL FLANGE	24	
12	07-31-01251	T-04-7-10	GASKET , FLANGE TO BRAKE CYLINDER	240	
13	07-31-01252	T-05-8-00	AXLE ,WHEEL & GEAR ASSY.	60	
14	07-31-01253	T-09-12-2	PINION –17 TEETH , TRACTION MOTOR D 77B	120	
15	07-31-01254	T-09-12-4	AXLE BEARING	320	
16	07-31-01255	T-09-12-6	BOLT HEX- HEAD ½ -13	2001	
17	07-31-01256	T-09-12-7	WASHER – LOCK1/2	2001	
18	07-31-01257	T-09-12-9	LUBRICATOR WICK ASSY.	500	
19	07-31-01258	T-12-15-7	ABSORBER ASSY . SHOCK VERTICAL	80	
20	07-31-01259	T-17-20-00	GEAR CASE ASSY.	60	
21	07-31-01260	T-17-20-3	BOLT SAFETY STRAP.	2001	
22	07-31-01261	T-17-20-5	NUT LOCK A- 240 MA.24*3	2001	
23	07-31-01262	T-17-20-4	STROP SAFETY	240	
24	07-31-01263	T-17-21-00	AXLE GUARD ASSY.	60	
25	07-31-01264	T-17-22-00	DUCT – TRACTION MOTOR AIR	120	
26	07-31-01265	T-17-20-01	GEAR CASE LOWER HALF	120	

**MECHANICAL PARTS ( CAB. + BODY + AIR BRAKE SYSTEM)**

ITEM	CODE	PART LIST P. L	DESCRIPTION	QTY	
1	07-31-01340	C543-1-1	RADIATOR ASSY. LEFT SIDE	20	
2	07-31-01341	C543-1-2	RADIATOR ASSY. RIGHT HAND SIDE	20	
3	07-31-01342	C543-1-13	COUPLING ASSY.	40	
4	07-31-01343	C543-1-23	COUPLING ASSY.	40	
5	07-31-01344	C543-1-29	COUPLING ASSY.	40	
6	07-31-01345	C543-1-25	GASKET	120	
7	07-31-01346	A549-2-6	CORE (RADIATOR)	40	
8	07-31-01347	A549-2-8	GASKET	320	
9	07-31-01348	D750-1-3	FUEL TANK LEVEL GAUGE	40	
10	07-31-01349	D 750-2-0	STRAINER ASSY. FUEL SUCTION	20	
11	07-31-01350	D 750-2-1	ELEMENT	60	
12	07-31-01351	D750-2-4	RING“ 0 “REF.2-338. N -219-7	600	
13	07-31-01352	D750-3-1	ELEMENT . GILTER PLEATED COTTON PAPER	160	
14	07-31-01353	D750-3-7	RING”0” REF.2-443 .N.219-7	600	
15	07-31-01354	C938-1-1	COOLER ASSY . LUBE OIL	20	
16	07-31-01355	C938-1-3	CORE . COOLER	20	
17	07-31-01356	C938-1-21	GASKET , HEADER TO CORE	250	
18	07-31-01357	C938-1-22	GASKET , BOTTOM HEADER TO TANK	250	
19	07-31-01358	A940-1-11	ELEMENT PLEATED COTTON PAPER	2800	
20	07-31-01359	A940-1-18	GASKET , COVER	200	
21	07-31-01360	C1007-1-16	GAUGE – ENGINE WATER LNLET TEMP.	20	
22	07-31-01361	C1007-1-17	GAUGE – WATER TANK WATER LEVEL	20	
23	07-31-01362	C1007-1-19	GAUGE-LUB.OIL PRESSURE	20	
24	07-31-01363	C1007-1-20	GUGE – LUB.OIL TEMPERATURE	20	
25	07-31-01364	C1007-2-35	CAPASSY,WATER TANK TILLER	40	
26	07-31-01365	C1007-3-59	HAND PRIME PUMP. FIG .1SIZE2 , WATER	20	
27	07-31-01366	C1070-2-2	VAVLE –26F CONTROL , REF( WABCO )	20	
28	07-31-01367	C1070-2-8	RE GULATOR PRESSURE , REF. ( DIMETAL)	20	
29	07-31-01368	C1070-2-17	VALVE ( A-1) .REF.(WABCO)	20	
30	07-31-01369	C1070-2-27	CHECK VALVE , REF ( EMD)	60	
31	07-31-01370	1071-1-1	RELIEF VALVE N.8(REF(WABCO))	40	
32	07-31-01371	1071-1-6	FILTER . REF (EMD)	40	
33	07-31-01372	1071-1-7	FILTER . REF (EMD)	40	
34	07-31-01373	1071-1-9	DOUBLE CHECK VALVE 26A. REF ( WABCO)	20	
35	07-31-01374	1071-1-10	DOUBLE GHEAC VALVE 596 REF (EMD)	40	
36	07-31-01375	1071-1-12	VALVE (E-7-C)REF(WABCO)	20	
37	07-31-01376	1071-1-14	DRAIN AUTOMATIC VALVE REF ( EMD )	40	
38	07-31-01377	1144-1-11	WBO-AIR COMPRESSOR	10	
39	07-31-01378	1144-2-5	CRANKSHAFT ASSY .	10	
40	07-31-01379	1144-3-27	BEARING – MAIN ROLLER	40	
41	07-31-01380	1144-3-33	SEAL OIL RUBBER	40	
42	07-31-01381	1144-4-40	GASKET	100	



ITEM	CODE	PART LIST P. L	DESCRIPTION	QTY	
43	07-31-01440	1144-4-41	GASKET	100	
44	07-31-01441	1144-4-41	GASKET	100	
45	07-31-01442	1144-4-69	HEAD , CYLINDER ( H.P )	20	
46	07-31-01443	1144-4-63	HEAD , CYLINDER ( L.P )	40	
47	07-31-01444	1144-4-68	GASKET TO CYLINDER (L.P) HEAD	80	
48	07-31-01445	1144-4-75	GASKET TO CYLINDER(H.P) HEAD	80	
49	07-31-01446	1144-5-80	VALVE – HIGH PRESSURE DISCHARGE	160	
50	07-31-01447	1144-5-81	GASKET , VALVE COVER TO ( L.P) HEAD	160	
51	07-31-01448	1144-5-82	GASKET , VALVE COVER TO ( H.P) HEAD	160	
52	07-31-01449	1144-5-87	CYLINDER, (L.P)	40	
53	07-31-01480	1144-5-88	CYLINDER, (H.P)	20	
54	07-31-01481	1144-5-90	GASKET (H.P)&(L.P) CYLINDER TO CRANK CASE	60	
55	07-31-01482	1144-5-94	GASKET	60	
56	07-31-01483	1144-5-100	PIN ,( L.P) PISTON	20	
57	07-31-01484	1144-5-102	ROD ,ASSY , CONNECTING	30	
58	07-31-01485	1144-5-102	BEARING –UPPER AND LOWER	120	
59	07-31-01486	1144-12-1	PISTON ASSY ( L.P) STD.	60	
60	07-31-01487	1144-12-3	RING SET	60	
61	07-31-01488	1144-12-16	PISTON ASSY (H.P) STD	60	
62	07-31-01489	1144-12-20	RING SET	60	
63	07-31-01490	1161-1-1	VALVE ASSY.DISCHARG(L.P)	160	
64	07-31-01491	1161-1-2	SEAT ASSY.	80	
65	07-31-01492	1161-1-6	GASKET –VALVE SEAT TO HEAD	160	
66	07-31-01493	1161-1-13	GASKE –COVER PLATE TO HEAD	160	
67	07-31-01494	1161-2-1	VALVE ASSY . SUCTION UNLOADING (L.P)	80	
68	07-31-01495	1161-2-8	GASKET – SEAT TO HEAD	160	
69	07-31-01496	1161-2-12	GASKET-VALVE COVER TO HEAD	160*	
70	07-31-01497	1161-4-3	VALVE ASSY. DISCHARGE (H.P)	160	
71	07-31-01498	1161-4-6	GASKET – VALVE SEET TO HEAD	160	
72	07-31-01499	1161-4-16	GASKET , COVER PLATE TO HEAD	160	
73	07-31-01430	1161-5-3	VALVE ASSY . (H.P) SUCTION UNLOADING	160	
74	07-31-01431	1161-5-11	GASKET , SEATTO HEAD	160	
75	07-31-01432	1161-5-17	GASKET , COVER PLATE TO HEAD	160	
76	07-31-01433	1164-2-2	ELEMENT	80	
77	07-31-01434	1144-13-20	FILLTER , OIL	60	
78	07-31-01435	C2410-2-11	MIRROR ,REAR VIEW	80	
79	07-31-01436	D2415-1-1	GLASS	60	
80	07-31-01437	D2415-1-2	WEATHER STRIP	120	
81	07-31-01438	D2415-1-3	JOINT	120	
82	07-31-01439	D2415-1-3	PROFILE	120	
83	07-31-01420	B2711-1-1	COUPLER “ WILLISON “ .INCLUDES COUPLING SCREW	40	
84	07-31-01421	A2940-1-1	HORN.SINGLE BELL KT75/370	40	
85	07-31-01422	A2940-1-2	HORN.SINGLE BELL KT75/660	40	

<b>ITEM</b>	<b>CODE</b>	<b>PART LIST P. L</b>	<b>DESCRIPTION</b>	<b>QTY</b>	
86	07-31-01540	A2940-1-3	DLAPHRAGM KM75ET (988-291)	80	
87	07-31-01541	D3239-3-1	GAUGE PRESSURE – MAIN RESERVOIR	20	
88	07-31-01542	D3239-3-2	SWITCH . COMPRESSOR CONTROL (CCS)	20	
89	07-31-01543	D3239-3-3	VALVE MAGNET , COMPRESSOR ( MVCC)	20	
90	07-31-01544	D3239-3-4	VALVE MAGNET , SHUTTER CONTROL	20	
91	07-31-01545	D 3610-1-2	DRIVE ASSY.	20	
92	07-31-01546	B4330-2-29	AIR GAUGE , BRAKE CYLINDER	20	
93	07-31-01547	B4330-2-30	AIR GAUGE , MAIN RESERVOIR	20	
94	07-31-01548	B4330-6-149	VALVE EMERGENCY.	40	
95	07-31-01549	B4330-10-5	VALVE . 26C.	40	
96	07-31-01550	B4330-13-95	VALVE ( MU2A)	20	
97	07-31-01551	B4330-16-181	VALVE( P2A)	20	
98	07-31-01552	B4330-16-182	VALVE RELAY ( J1)	20	
99	07-31-01553	B4330-16-183	VALVE DOUBLE CHEAK (26.A)	20	
100	07-31-01554	B4330-16-184	VALVE DOUBLE CHECK	20	
101	07-31-01555	B4330-16-185	VALVE SOLENOID	40	
102	07-31-01556	B4330-16-196	WHISTLE.	40	
103	07-31-01557	A4522-1-22	CAUPLING ASSY(LOAD REGULATOR)	20	
104	07-31-01558	A4522-1-2	MOTOR ASSY.	20	

**ELECTRICAL PARTS / MACOSA**

<b>ITEM</b>	<b>CODE</b>	<b>P.N</b>	<b>P.L</b>	<b>DESCRIPTION/ ELECTRICAL / PARTS</b>	<b>QTY</b>	
1	07-31-01640	8413191	3317-49-P2	BRUSH CARBON AR 10	300	
2	07-31-01641	8413190	3317-52P3	BRUSH CARBON D14	300	
3	07-31-01642	8374003	3317-74P3	TRANSTORMER CURRENT	20	
4	07-31-01643	8346621	3317-1 P10	STATOR ASSY. D 14	20	
5	07-31-01644	8368467	3317-2P12	DIODES SILICON POSITIVE BASE	600	
6	07-31-01645	8368469	3317-4P12	DIODES SILICON POSITIVE BASE	600	
7	07-31-01646	8452314	3913	PINION	100	
8	07-31-01647	8109922	3913-143P7	CONNECTOR	200	
9	07-31-01648	8277771	3915-1 P1	WICK ASSY	120	
10	07-31-01649	8300704	3926-1-P1	SUPPORT BEARING	120	
11	07-31-01650	8446094	3939-1P3	GEAR CASE – LOWER HALF	120	
12	07-31-01651		3707-1 P1	GENERATOR . AC/MODEL A.8147 M1	10	
13	07-31-01652	8452997	3244-1-10	MODULE CIRUIT ( VR11) VOLT REG.	20	
14	07-31-01653	9098617	3244-1-11	MODULE(TH13)THROTTLE RESPONSE	10	
15	07-31-01654	9319866	3244-1-12	MODULE (RC12) RATE CONTROL	10	
16	07-31-01655	9511752	3244-1-13	MODULE (FP20) FEED BACK PERRFORMANCE	10	
17	07-31-01656	8958900	3244-1-14	MODULE (SE10) SENSOR	10	
18	07-31-01657	8453967	3244-1-15	MODULE (GV12) GENERATOR VOLTAGE REG.	10	
19	07-31-01658	8442229	3244-1-16	MODULE (GX2) GENERATOR EXITATION	10	
20	07-31-01659	8441080	3244	MODULE (WS10)WHEEL SLIP	10	
21	07-31-01660	8441478	3244-1-20	MODULE (SA11) SANDING	10	
22	07-31-01661	9504071	3244-1-21	MODULE (ES17) FIELD SHUNTING	10	
23	07-31-01662	8330937	3244-1-24	CONTACTOR GEN. FIELD (GFA)	20	
24	07-31-01663	8401643	3244-1-25	CONTACTOR GEN.FIELD (GFD)	20	
25	07-31-01664	8460403	3244-1-26	TRANSDUCTOR ELT FCT.	20	
26	07-31-01665	8451158	3244-1-27	CONTACTOR FIELD SHUNTING FSI	20	
27	07-31-01666	8482180	3244-1-28	CONTACTOR STARTING AUX. STA	10	
28	07-31-01667	9315518	3244-1-29	CONTACTOR STARTING (ST)	80	
29	07-31-01668	8461332	3244-1-30	CONTACTOR POWER SP 14-SP25 SP36	30	
30	07-31-01669	8464117	3244-1-31	SWITCH MAGNETIC RVF RVR	40	
31	07-31-01670	8465002	3244-1-34	TRANSDUCTOR WHEEL SLIP WST 16-24	20	
32	07-31-01671	8004611	3244-1-44	SWITCH ENGINE ROOM LIGHT DPOT	20	
33	07-31-01672	8439118	3244-11P46	SWITCH –ROTORY HEAD LIGHT	20	
34	07-31-01673	8488660	3244	SWITCH	20	
35	07-31-01674	8454412	3244-3-3	RELAY WS 36 WS 14	20	
36	07-31-01675	8421231	3244-3-4	RELAY(NVR)NO VOLTAGE	20	
37	07-31-01676	8361776	3244-3-5	RELAY- CROUND FAULT DETECTOR( GR)	20	
38	07-31-01677	8357417	3244-3-6	RELAY FOR RVRA	20	

ITEM	CODE	P.N	P.L	DESCRIPTION/ ELECTRICAL / PARTS	QTY	
39	07-31-01740	8361774	3244-3-7	RELAY (MR)	20	
40	07-31-01741	8357416	3244-3-8	RELAY(GFX-ER-PCP-ECP)	40	
41	07-31-01742	8361775	3244-3-9	RELAY (RER)	40	
42	07-31-01743	460396	4001-33P18	RESISTOR R7,2570 AM 5 WATT	20	
43	07-31-01744	8363168	3244-3-11	RELAY FRR- WL-OSR	40	
44	07-31-01745	8357415	3244-3-12	RELAY( THL-TSR-OSRA-COR-CDR) 40		
45	07-31-01746	8272600	3244-3-13	RELAY VIGILANCE CONTROL(VCTD)	20	
46	07-31-01747	3324997	3244-4-2	TACHOMETER	20	
47	07-31-01748	6960162	3244-4-4	VOLTMETER	40	
48	07-31-01749	3295501	3244-4-5	AMMETER	40	
49	07-31-01750	XB2-AA42	3244-4-6	PUSH DUTTON ENGINE STOP TELEMEC	40	
50	07-31-01751	8433191	3244-4-7	SWITCH ROTARY LOSLUTION	20	
51	07-31-01752	8426700	3244-4-8	SWITCH ROTARY FUEL - PRIME ENGINE	20	
52	07-31-01753	8458724	3244-5-2	BREAKER,CIRUIT DP-03A LIGHT HPL	20	
53	07-31-01754	8478724		BREAKER AIR CONDITION	20	
54	07-31-01755	8958733	3244-5-3	BREAKER DEFR- FAN, SPEED REG. WA	20	
55	07-31-01756	8458726	3244-5-4	BREAKER – CIRCUIT DP.35A HEAD LIGHT	20	
56	07-31-01757	8458742	3244-5-5	BREAKER – CIRCUIT 3P.30 A LOCAL CONT.	20	
57	07-31-01758	8458727	3244-5-6	BREAKER – CIRCUIT DP-15A - AC CONTT.	20	
58	07-31-01759	8458738	3244-5-7	BREAKER , CIRCUIT DP-40A-CONTROL	20	
59	07-31-01760	8458741	3244-5-8	BREAKER , CIRCUIT 3P-15A, FUEL PUMP	20	
60	07-31-01761	8458728	3244-5-9	BREAKER , CIRCUIT DP-5A MOUDUL CONT.	20	
61	07-31-01762	9095648	3244-5-10	BREAKER , CIRCUIT DP-100A GEN.FIELD	20	
62	07-31-01763	8433383	3244-5-11	BREAKER , CIRCUIT DP-100A GEN FIELD	20	
63	07-31-01764	8448859	3244-5-12	BREAKER , CIRCUIT DP-50A-BLOWER MOT.	20	
64	07-31-01765	9080767	3244-5-13	BREAKER , CIRCUIT DP-35A , AIR COND.	20	
65	07-31-01766	8485669	3244-5-14	BREAKER , CIRCUIT DP-60A,COB HEATER	20	
66	07-31-01767	V-136316	3244-5-15	SWITCH , FIRE DETE CTOR	20	
67	07-31-01768	XB2-AR45	3244-5-6	PUSH BOTTON TEST FIRE TELEMEC	20	
68	07-31-01769	8351993	3244-6-2	TRANSFORE MER GPYI=GPT2	20	
69	07-31-01777	835325	3244-6-3	RECTIFIER , CR-GR	20	
70	07-31-01778	8421017	3244-6-4	RECTIFIER, ASY-CRU-CR66	20	
71	07-31-01779	9092231	3244-6-5	RESISTOR REA(110) OHM,400 WATTS	20	

ITEM	CODE	P.N	P.L	DESCRIPTION	QTY	
72	07-31-01840	9339108	3244-6-6	RESISTOR RE11 – RE12,16 OHM – 400 W	40	
73	07-31-01841	8411480	3244-6-7	RESISTOR RE 9 – RE 9 (250 ) OHM – 50 W	20	
74	07-31-01842	8399938	3244-6-8	RESISTOR RE 2 – ( 418 ) OHM – 400 W	20	
75	07-31-01843	8396289	3244-6-9	RESISTOR (RE 3 – 350 ) 150 OHM – 160 W	20	
76	07-31-01844	8398604	3244-6-10	RESISTOR,RE 4 – RE 15 – RE 14	20	
77	07-31-01845	8283943	3244-6-11	RESISTOR – RE 23,ABC – RE 24 A – B - C	20	
78	07-31-01846	8392344	3244-6-12	RESISTOR – RE 15 – RE 16 ( 400 ) OHM – 25 W	20	
79	07-31-01847	8239506	3244-6-13	RESISTOR – RE 31 – 33 – 34 – 41 – ( 100 ) OHM	20	
80	07-31-01848	8332380	3244-6-14	RESISTOR – RE 32 – 350 OHM – 50 W	20	
81	07-31-01849	8410838	4334	SWITCH ROTARY MOTOR CUT - OUT	20	
82	07-31-01850	8150199	3244	SWITCH TOGGLE ENGINE ROOM 11 GHT	20	
83	07-31-01851	8209955	5377-2	BASE ASSY. UPPER CONTACT	20	
84	07-31-01852	8409382	5377-9	BASE LOWER CONTACT	20	
85	07-31-01853	8409388	5377-49	BRUSH ASSY. MORABLE CONTACT	40	
86	07-31-01854	8209385	5377-54	COIL	20	
87	07-31-01855	8258614	5401-3	POSTASSY – STATIONARY CONTACT	40	
88	07-31-01856	8251207	5401-15	PLATE ASSY. MOVABLE CONTACT	20	
89	07-31-01857	8358489	5401-31	COIL	20	
90	07-31-01858	8339440	5408-9	CONTACT ASSY - MOVABLE	20	
91	07-31-01859	8339441	5408-10	CONTACT ASSY - STATIONARY	20	
92	07-31-01860	8332086	5424-2	INTERLOCK ASSY.	20	
93	07-31-01861	8441833	5424-8	CONTACT ASSY.	20	
94	07-31-01862	8339355	5424-12	CONTACT ASSY.	20	
95	07-31-01863	8339390	5424-17	CONTACT ASSY.	20	
96	07-31-01864	8261221	5432-7	BLOCK ASSY – MOVABLE CONTACT	20	
97	07-31-01865	8080384	4110-E1-P1	PUMP ASSY. FUEL INCLUDE MOTOR APA	20	
98	07-31-01866	907597	4110-E5-35	BEARING - BALL	20	
99	07-31-01867	954157	4110-ES-35	BEARING - BALL	20	
100	07-31-01868	2802707	4123-E1-17	COIL ASSY	20	
101	07-31-01869	491237	4110-E2-2	ARMATURE	20	
102	07-31-01872	907931	4123-E1-22	BEARING,BALL,FRAME END	20	
103	07-31-01873	907786	4123-E1-25	BEARING,BALL,FAN END	20	
104	07-31-01874	9505012	4330-4-48	AMMETER	40	
105	07-31-01875	8330133	4330-4-52	SWITCH TOGGLE	40	
106	07-31-01876	8330135	4330	SWITCH SLIDE BUTTON CONTROL FUEL PUMP	40	
107	07-31-01877	8455355	4330-4-53	SWITCH TOGGLE	40	
108	07-31-01878	8330137	4330-4-54	SWITCH TOGGLE	40	
109	07-31-01879	8233305	4330-4-55	SWITCH TOGGLE	40	

ITEM	CODE	P.N	P.L	DESCRIPTION	QTY	
110	07-31-01940	8481267	4330-4-56	SWITCH PUSH BUTTON	40	
111	07-31-01941	TELEMECA	4330-4-57	SIGNAL LIGHT REF XB2 – AV.54	20	
112	07-31-01942	TELEMECA	4330-4-58	SIGNAL LIGHT REF XB2 – AV.67	20	
113	07-31-01943	TELEMECA	4330-3-105	PUSH BUTTON XB2 – AC 53	40	
114	07-31-01944	V – 183229	4330-3-106	SWITCH	20	
115	07-31-01945	8296750	4330-3-142	SWITCH	20	
116	07-31-01946	8423587	4522-E1-1	LOAD REGULATOR	20	
117	07-31-01947	8378256	4522-E-27	RHEOSTAT ( 1500 ) OHM	20	
118	07-31-01948	846228	4710-11-3	VALVE MAGNETIC TYP ( 863 )	40	
119	07-31-01949	8250983	4710-11-4	PLUNGER ASSY. VALVE	40	
120	07-31-01950	8461941	4715E4-1	MAGNETIC VALVE TYPE ( 812 QL – 17 )	40	
121	07-31-01951		4715-E4-4	VALVE ASSY	20	
122	07-31-01952	9518966	3239	SWITCH COMPRESSOR CONTROL ( CCS )	40	
123	07-31-01953	8117872	5524-2-E1	PRESSURE SWITCH ESS,35 - PSI	40	
124	07-31-01954	8458724	4923-E1-S	CIRCUIT BREAKER ( 30A – 74V ) DOUBLE	20	
125	07-31-01955	8448859	4923-E2-5	CIRCUIT BREAKER ( 50A – 74V )	20	
126	07-31-01956	8340775	5524-4-E1	PRESSURE SWITCH PCS	40	
127	07-31-01957	8424293	5524-3-E3	TEMPERATURE SWITCH ( TA – 74C°,1	40	
128	07-31-01958	8424295	5524-8-E3	TEMP. SWITCH ( TC ) ( 190 – 175 F° )	40	
129	07-31-01959	8425023	5524-1-E5	TEMP. SWITCH ( ETS )	40	
130	07-31-01960	1109629	125-1	STARTER MOTOR ( 64 ) VOLT DC	40	
131	07-31-01961	1967349	125-2	ARMATURE	40	
132	07-31-01962	1967345	125-3	COLL ASSY. FIELD	20	
133	07-31-01963	8350246	5914-E1-2	SWITCH	20	
134	07-31-01964	8156001	5914-E7-23	LAMP SEALED BEAM – TYPE, 200W	40	
135	07-31-01965	8363168	3239-4	RELAY FPC - CRL	40	
136	07-31-01966	8314549	3239-1	CONTACTOR ( FC1 – FC2 )	20	
137	07-31-01967	8102509	5402-18	FINGER ASSY. MOVABLE CONTACT	20	
138	07-31-01968	8330350	5402-24	CONTACT ASSY. STATIONARY	20	
139	07-31-01969	8152565	5402-39	COIL ( 200 ) OHM	20	
140	07-31-01970	8184413	2428	COMPRESSOR FOR WATER COOLER	20	
141	07-31-01971	HASLER	2133-1	TACHOGRAPH RT9 (5-1547-017/ 01	20	
142	07-31-01972	HASLER	2133-2	TACHO METER ( A16 ) ( 5-1541- 3/ 01	20	
143	07-31-01973	HASLER	2133-5	TRANSMITTER ( 60V ) ( 58-312- 001 )	20	
144	07-31-01974	8479400	6903-E5-1	RECTIFIER ASSY. BATTERY CHARGING	20	
145	07-31-01975	8485245	6903-E5-4	DIODC ASSY – SILICON NEGATIVE	20	

<b>ITEM</b>	<b>CODE</b>	<b>P.N</b>	<b>P.L</b>	<b>DESCRIPTION</b>	<b>QTY</b>	
<b>146</b>	07-31-02040	<b>8413522</b>	<b>6903-E5-5</b>	<b>DIODE ASSY – SILICON POSITIVE</b>	<b>20</b>	
<b>147</b>	07-31-02041	<b>8451653</b>	<b>6913-E6-1</b>	<b>RECTIFIER ASSY. SCR</b>	<b>20</b>	
<b>148</b>	07-31-02042	<b>8452951</b>	<b>6903-E6-2</b>	<b>DIODE SILICON SERIES</b>	<b>20</b>	
<b>149</b>	07-31-02043	<b>8452949</b>	<b>6903-E6-3</b>	<b>DIODE SILICON BRIDGE</b>	<b>20</b>	
<b>150</b>	07-31-02044	<b>9091052</b>	<b>4334-1</b>	<b>CONTROLLER MECHANISIN ASSY.</b>	<b>20</b>	
<b>151</b>	07-31-02045	<b>8296748</b>	<b>4334-E10-3</b>	<b>SWITCH ROLL – BUTTON C – CD</b>	<b>20</b>	
<b>152</b>	07-31-02046	<b>8296750</b>	<b>4334-E10-4</b>	<b>SWITCH ROLL – BUTTON – IN – OABIN - C</b>	<b>20</b>	
<b>153</b>	07-31-02047	<b>8296752</b>	<b>4334-E10-5</b>	<b>SWITCH ROLL – BUTTON – IN – C: A. B</b>	<b>20</b>	
<b>154</b>	07-31-02048	<b>8298178</b>	<b>4334-E10-6</b>	<b>SWITCH ROLL – BUTTON 2NC – ABACD</b>	<b>20</b>	
<b>155</b>	07-31-02049	<b>NIFE</b>	<b>9130-4</b>	<b>BATTERY ( 48 ) ELEMENT HI 27</b>	<b>20</b>	
<b>156</b>	07-31-02050	<b>8414678</b>	<b>3244-3</b>	<b>FUSE 800 A</b>	<b>40</b>	

**ELECTRICAL SPARE PARTS FOR FRANCOR A IL LOCOMOTIVES**

<b>MEM</b>	<b>CODE</b>	<b>DESC RIPTONS</b>	<b>QTY</b>
1	07-31-02140	REVERSE 48 RS 10A Assy .	100
2	07-31-02141	CONTACTOR ( CEX ) assy .	50
3	07-31-02142	CONTACTOR ( SIA- SIB )	100
4	07-31-02143	CONTACTOR ( CID )	50
5	07-31-02144	CONNECTION	100
6	07-31-02145	CONNECTION	100
7	07-31-02146	DIODE BLOCK . Gc. ( VSCBA )	50
8	07-31-02147	CAPACITOR CAP ( VSCBA )	50
9	07-31-02148	CONTACTOR ( S2A – S2B )	100
10	07-31-02149	CONTACTOR ( TM1 , TM2 , TM3 )	150
11	07-31-02150	DIODE Assembly ( VSRD )	50
12	07-31-02151	RESISTOR ( RD )	50
13	07-31-02152	DIODE	50
14	07-31-02153	DIODE SUPPORT	50
15	07-31-02154	RESISTOR 0.34 OHM ( Passenger )	15
16	07-31-02155	ELECTRO PNEU MA TIC CONTCTOR	50
17	07-31-02156	BIOW – OUT AS.SY.	50
18	07-31-02157	CYLINDER ASSEMBLY .	50
19	07-31-02158	AUXILIARY CONTACTS	50
20	07-31-02159	MAGNET VALVE ASSY .	50
21	07-31-02160	MOVABLE CONTACT ASSY.	50
22	07-31-02161	AUXILIARY CONTACT ASSY .	100
23	07-31-02162	MAGNETIC VALVE ASSY .	100
24	07-31-02163	REVERSOR ASSY .	50
25	07-31-02164	FIXED CONTACT	300
26	07-31-02165	FIXED CONTACT	300
27	07-31-02166	FIXED CONTACT	300
28	07-31-02167	PISTON RING	100
29	07-31-02168	PISTON	100
30	07-31-02169	AUXILIARY CONTACT ASSY .	100
31	07-31-02170	MAGNETIC VALVE ASSY .	100
32	07-31-02171	FIXED CONTACT	200
33	07-31-02172	FIXED CONTACT	200
34	07-31-02173	FIXED CONTACT	200
35	07-31-02174	MOVABLE CONTACT	50
36	07-31-02175	PISTON RING	100
37	07-31-02176	PISTON	100
38	07-31-02177	CONTACT	200
39	07-31-02178	SLIP RING ASSEMBLY .	300
40	07-31-02179	SLIDER INSTALATION	300
41	07-31-02180	AXLE BEARING CAP E9U . ( Passenger )	90
42	07-31-02181	AXLE BEARING CAP E9U .( Good )	210
43	07-31-02182	BALL BEARING.	50
44	07-31-02183	BALL BEARING.	50
45	07-31-02184	BRUSH – ASSY .	500
46	07-31-02185	OUTER BALL BEARING.	50
47	07-31-02186	OUTER BALL BEARING.	50
48	07-31-02187	IDLER.	50
49	07-31-02188	BRUSH ASSEMBLY.	500
50	07-31-02189	BALL BEARING.	50
51	07-31-02190	BALL BEARING.	50
52	07-31-02191	BRUSH.	800
53	07-31-02192	BALL BEARING.	50



MEM	CODE	DESC RIPTONS	QTY
54	07-31-02240	BALL BEARING	50
55	07-31-02241	BALL BEARING	50
56	07-31-02242	BRUSH	800
57	07-31-02243	BRUSH	800
58	07-31-02244	PINON 17 TEETH	90
59	07-31-02245	PINON 22 TEETH	210
60	07-31-02246	SELECTOR SWITCH 22 – LM	50
61	07-31-02247	SELECTOR SWITCH	100
62	07-31-02248	SELECTOR SWITCH	50
63	07-31-02249	BRUSH – HOLDER ASSY .	50
64	07-31-02250	BRUSH – HOLDER	300
65	07-31-02251	BEARING ASSY . PINON SIDE	900
66	07-31-02252	BEARING ASSY .	300
67	07-31-02253	BATTERY NI – CD – 320A/HV type KPH 320	30 set
68	07-31-02254	ELECTRONIC PANEL With Electronic cards Complete set	10 SETS

**SPARE PARTS FOR COACHING STOCK**

MEM	CODE	DESCRIPTION	P.N.	QTY.
	07-31-02340	SAFTY GLASSES FOR PASSENGER COACHES TOU GHENED.		
1	07-31-02341	1220 × 820 × 5 MM.	STANDARD	500
2	07-31-02342	1020 × 820 × 5 MM.	=	150
3	07-31-02343	770 × 820 × 5 MM.	=	150
4	07-31-02344	890 × 350 × 6 MM. ( For DOORS )	=	200
	07-31-02345	LAMINATED		
5	07-31-02346	1220 × 820 × 808	STANDARD	500
6	07-31-02347	1020 × 820 × 808	=	150
7	07-31-02348	770 × 820 × 808	=	150
	07-31-02349	ALL GLASSES SHALL BE STAMPED WITH ( IRR ) MARK , AND HAVE CORNERS ACCORDING TO DRAWING .		
8	07-31-02350	ARTIFITIAL LEATHER FOR SEATS BRILLIANT GREEN COLOUR	120-140 CM WIDE	10.023M.
9	07-31-02351	LENOL EUM FOR FLOORING 100CM WIDE BRILLIANT GREEN COLOUR	=	2001 M.
10	07-31-02352	FORMICA STANDARD SIZE SHEET 2-3MM THICK (8× 4 )	=	1001NOS.
11	07-31-02353	TIPS FOR WHEEL LATHE MACHINES LEFT AND RIGHT HAND , LNUX 191940N-W15 (KC9025)		5001NOS.
12	07-31-02354	COMPETE ACCESS DOORS ( SETOF BIGLEAF,ONE SMALL LEAF ONE DOOR SUPPORT FOR ANF COACHES , ( LH )	C001.1	40
13	07-31-02355	COMPETE ACCESS DOORS ( SETOF BIGLEAF,ONE SMALL LEAF ONE DOOR SUPPORT FOR ANF COACHES , ( RH )	C001.2	40

**ELECTRIC SPARES FOR COACHING STOCK**

<b>MUM</b>	<b>CODE</b>		<b>DESCRIPTION</b>	<b>QTY.</b>
<b>1</b>	07-31-02440	<b>144320831</b>	<b>Connection socket compl .Dr.No. 165.060.027 GZ .I</b>	<b>50</b>
<b>2</b>	07-31-02441	<b>14432082</b>	<b>Electric contouts for above socket</b>	<b>60 set</b>
<b>3</b>	07-31-02442	<b>144310583</b>	<b>25W lamp B22 spherical glass 20V</b>	<b>1001</b>
<b>4</b>	07-31-02443	<b>144311001</b>	<b>Socket for flourescut tube fixture R.F (E39.1)</b>	<b>200</b>
<b>5</b>	07-31-02444	<b>144311044</b>	<b>40W inventen for flourescut tube R.F.(E049)</b>	<b>1001</b>
<b>6</b>	07-31-02445	<b>144311045</b>	<b>Transformer for aloove inverter</b>	<b>1001</b>
<b>7</b>	07-31-02446	<b>144311088</b>	<b>20W inverter for flourescut teeke R.F. (E050)</b>	<b>1001</b>
<b>8</b>	07-31-02447	<b>144311089</b>	<b>Tram sformen for above inv.</b>	<b>250</b>
<b>9</b>	07-31-02448	<b>14431052</b>	<b>Complete fixtare lighting (20W) for vestibule and corrid or lighting R.F. (E037.1)</b>	<b>200</b>
<b>10</b>	07-31-02449	<b>144324109</b>	<b>Water cooler compl. R.F. (M001)</b>	<b>50</b>
<b>11</b>	07-31-02450	<b>144329118</b>	<b>Diaphram water pump model 24V d.c. 3.5A open flow 2.3 imp, thermally protected</b>	<b>1001</b>
<b>12</b>	07-31-02451		<b>V.H. Flexible cable 85 mm2</b>	<b>1001 met</b>
<b>13</b>	07-31-02452		<b>V.H. Flexible cable 95 mm2</b>	<b>3001 met</b>

**IRAQI REPUBLIC RAILWAYS COMPANY**  
**Civil Engineering Requirements M.O.U. – Phase 7**

1st- Track materials and track construction machines

I	CODE	DESCRIPTION	QTY.
1	07-31-02540	UIC 60 Rails without holes (ton)	24001
2	07-31-02541	Pandrol Fastenings for UIC-60 Rail ( Set = 2 clip + 2 Shoulder + 2Insulators + 1pad ) Sets	750010
3	07-31-02542	Strand 9.3mm dia.(7 wires ) for Prestressed concrete sleepers of Tensile strength 18000 kg/cm <sup>2</sup> (ton)	3500
4	07-31-02543	Dynamic track stabilizer machine (Nos)	2
5	07-31-02544	Powered ganger's trolley with HIAB crane of 6 ton capacity, to be used for ballasting, shunting and traction of civil engineering trains of total load 2000 tons (Nos.)	2
6	07-31-02545	Tamping, lining and lifting machine of two or three sleepers tamping unit, automatically operated and supplied with computerized laser surveying system. (Nos.)	2
7	07-31-02546	Heavy duty ballast regulator machine, to be used for construction and renewal of track. (Nos.)	2
8	07-31-02547	Railway crane 16 ton/3m, to be used also for shunting and traction of civil engineering trains of total load 1000 tons.(Nos.)	5
9	07-31-02548	Track laying machine for track elements of 30 ton in weight, 4.5m in width and 30m in length the machine to be used for track laying in mainline and switches, hoisting height 3m. All dimensions have to be within IRR loading gauge.(Nos.)	5

Item	CODE	DESCRIPTION	Qty.
10	07-31-02549	<p style="text-align: center;"><b>BALLAST CRUSHING PLANT</b></p> <p>* The Input is Limestone of the following specification:.</p> <p>- Ultimate compression strength test not less than 600 kg/cm<sup>2</sup></p> <p>Abrasion test according to ASTM-C131- - 55 using LOS ANGLES Machine percentage of wear not exceed 25% by weight.</p> <p>* The output must be not less than 150m<sup>3</sup>/h of products size 30-60 mm.</p> <p>* The plant can be moved easily between sites by itself with less time and less arrangements for erection .</p> <p>* The plan have to be supplied with electrical generating unit its power have to be enough to operate the plant and all the accessories in the site . The plant must be arranged for 24 working hours per day (NOS)</p>	3
11	07-31-02550	Wooden sleepers ( azobe, oak, kampak, beech,or iroko) for turnouts with creosot treatment without adzing and drilling (NOS)	30010
12	07-31-02551	6-Holes fishplate with bolts and nuts for Bs90A rails	30010 pairs

**B- Spare parts for Rauma Repola Railway crane type R351N**

Serial No. 1975, 1978 and 1982.

I	CODE	DESCRIPTION	PART NUMBER	QTY.
1	07-31-02640	Pump	7062 033840 00	3
2	07-31-02641	3/2 Directional Valve	7820 482797 00	3
3	07-31-02642	Control valve, brake	7820 408979 00	3
4	07-31-02643	2/2 Directional valve	7820 364561 00	3
5	07-31-02644	Check valve	7062 031590 00	6
6	07-31-02645	Throttle valve	7063 001185 00	3
7	07-31-02646	Check valve	7820 469970 00	6
8	07-31-02647	Steered check valve	7820 364820 00	4
9	07-31-02648	Current secure	7820 0467713 00	4
10	07-31-02649	Check valve	7820 300927 00	3
11	07-31-02650	Check valve	7820 306351 00	3
12	07-31-02651	Double Relief valve	7820 306555 00	3
13	07-31-02652	Check valve	7820 469802 00	6
14	07-31-02653	Relief valve	7820 306577 00	3
15	07-31-02654	Check valve	7062 024550 00	4
16	07-31-02655	Check valve	7062 024430 00	3
17	07-31-02656	Valve	7063 001200 00	3
18	07-31-02657	Directional valve	7820 300826 02	3
19	07-31-02658	Solenoid valve	7820 300826 00	6
20	07-31-02659	Coil	7896 400832 02	3
21	07-31-02660	Directional valve	7820 364212 00	3
22	07-31-02661	Relief valve	7820 364003 02	3
23	07-31-02662	Check valve	7062 024410 00	3
24	07-31-02663	Pump	7062 033830 00	3
25	07-31-02664	Seal kit for rotating distributor No.112073		Sets 3
26	07-31-02665	Pressure relief valve	119061-16	3
27	07-31-02666	Magnet valve	119061-17	3
28	07-31-02667	Engine (SCANIA DN8)	7063 015700 00	3
29	07-31-02668	Oil Cooler	9396 317538 00	2
30	07-31-02669	Pressure switch	7074 022612 00	3
31	07-31-02670	Damper	7063 002640 00	6
32	07-31-02671	Damper	7063 010826 00	12
33	07-31-02672	Damper	7063 010950 00	6
34	07-31-02673	Damper	7063 010948 00	6
35	07-31-02674	Sensor	7074 021758 00	3

I	CODE	DESCRIPTION	PART NUMBER	QTY.
36	07-31-02740	<b>Sensor</b>	707402175600	3
37	07-31-02741	Axial piston pump	7062 033830 00	3
38	07-31-02742	Axial piston pump	7062 033840 00	9
39	07-31-02743	Torque converter	7063 035530 00	1
40	07-31-02744	Switch	7073 016380 00	3
41	07-31-02745	Switch	7074 011638 30	3
42	07-31-02746	Cylinder	9964 018488 00	3
43	07-31-02747	Remote control	7063 0013490 00	3
44	07-31-02748	Boom extension II	168835	3
45	07-31-02749	Cylinder telescoping	7813 282522 00	3
46	07-31-02750	Cylinder telescoping	7813 282521 00	3
47	07-31-02751	Cylinder telescoping	7813 282519 00	3
48	07-31-02752	Rope pulley	469180	25
49	07-31-02753	Boom extension I	9395 182895 00	3
50	07-31-02754	Seal kit for cylinder, Derricking No.781330629800		6 sets
51	07-31-02755	Check valve, steered	7820 306570 00	3
52	07-31-02756	Check valve, steered	7820 306263 00	3
53	07-31-02757	Check valve, steered	7820 464785 00	3
54	07-31-02758	Flow Fuse	7896 364084 00	6
55	07-31-02759	Group of relief and check valves	7820 364272 00	3
56	07-31-02760	Axial piston motor	7062 033844 00	3
57	07-31-02761	Cylinder	9396 306625 00	3
58	07-31-02762	Hydraulic motor	118976 A/22	6
59	07-31-02763	Seal set for supporting cylinder No.119051-15		12 set
60	07-31-02764	Steering check valve	119051-16	12
61	07-31-02765	Check valve	119051-17	3
62	07-31-02766	Directional valve	119051-110	3
63	07-31-02767	Directional valve	119051-111	3
64	07-31-02768	Relief valve	119051-112	3
65	07-31-02769	Relief valve	119051-113	3
66	07-31-02770	Check valve	220324-4	3
67	07-31-02771	Relay	119082-28	18

Spare parts for Plasser & Theurer Ballast regulator PBR-103 C-  
M/C No. 278/305/306.

I	CODE	DESCRIPTION	PART NUMBER	QTY.
1	07-31-02840	Triple pump	HY832x381708R	3
2	07-31-02841	Valve	HY51A	3
3	07-31-02842	Pump	HY701.N10R	3
4	07-31-02843	Valve	HY56R	18
5	07-31-02844	Volume converter	HY157.21	3
6	07-31-02845	Non-return valve	HY151.0310.5	3
7	07-31-02846	Valve	HY24RSH	3
8	07-31-02847	Valve	HY24RSJ-ET	9
9	07-31-02848	Motor	HY913x138	6
10	07-31-02849	Non-return valve	HY151.13/3	3
11	07-31-02850	Control valve	HY16RM13	3
12	07-31-02851	Actuating	HY40.165	3
13	07-31-02852	Control valve	HY10RMJJ	3
14	07-31-02853	Cylinder	HZBG.063.025 .0550.1	3
15	07-31-02854	Motor	HY912x250	3
16	07-31-02855	Motor	HY912x200	3
17	07-31-02856	Valve	HY10RMEEEEJ	3
18	07-31-02857	Cylinder	HZGB.080.045 0350.1.002	12
19	07-31-02858	Cylinder	HZGB.100.050 0820.1.001	6
	07-31-02859			
20	07-31-02860	Cylinder	HZGB.063.036. 0660.1.055	6
21	07-31-02861	Cylinder	HZGB.063.040. 0210.1.001	6
22	07-31-02862	Cylinder	SU2.5.1.31	3
23	07-31-02863	Cylinder	HZGB.063.025. 055.1	3
24	07-31-02864	Motor	HY900N200	3
25	07-31-02865	Air compressor	90102	3
26	07-31-02866	Valve	90200	3
27	07-31-02867	Brake valve	90364	3
28	07-31-02868	Valve	90345	3

I	CODE	DESCRIPTION	PART NUMBER	QTY.
29	07-31-02940	Valve	90251	3
30	07-31-02941	Valve	90250	9
33	07-31-02942	Switch	0344400108	6
34	07-31-02943	Non-return valve	90252	3
35	07-31-02944	Valve	90257	3
36	07-31-02945	Valve	90253	6
37	07-31-02946	Cylinder	PN2Z-G.35/12/50	6
38	07-31-02947	Valve	90344	3
39	07-31-02948	Transducer	226.801/015/001	3
40	07-31-02949	Spring	732073-MG650-S4	24
41	07-31-02950	Bearing bush	G200.11	3
42	07-31-02951	Valve	HY24RSH-B	3
43	07-31-02952	Gear box	1032.04.01.1256	3
44	07-31-02953	Cylinder	SU2.5.1.31	3
45	07-31-02954	Diesel engine	F6L-413F/ 1x300CCM	3
46	07-31-02955	Switch box	EL-P1.08-B5	3



## D- Spare parts for Plasser & Theurer m/c Tamping machine

Type 08-32U & 08-275 No.2409 & 868.

I	CODE	DESCRIPTION	PART NUMBER	QTY.
1	07-31-03040	Spiral	DL-90.37	2
2	07-31-03041	Safety valve	90201	2
3	07-31-03042	Brake valve	90364	2
4	07-31-03043	Pressure regulator	90183	2
5	07-31-03044	Seal kit	PN2Z50DS	20
6	07-31-03045	Seal kit	PN1Z35DS	20
7	07-31-03046	Seal kit	PN2Z70DS	16
8	07-31-03047	Seal kit	PN2Z 100DS	16
9	07-31-03048	Seal kit	PN1Z 25DS	16
10	07-31-03049	Compressor	BS1247	4
11	07-31-03050	Pneum. Cyl.	PN2ZG100 25.300	4
12	07-31-03051	Pneum. Cyl.	PN2ZG70.20.300	4
13	07-31-03052	Pneum. Cyl.	PN1ZG35.12.50	4
14	07-31-03053	Pneum. Cyl.	PN2ZG50.16.150	4
15	07-31-03054	Pneum. Cyl.	PN2ZG50.16.300	4
16	07-31-03055	Pneum. Cyl.	PN2ZG70.20.300	4
17	07-31-03056	Pneum. Cyl.	PN2ZG50.16.50	4
18	07-31-03057	Pneum. Cyl.	PN2ZG50.16.250	4
19	07-31-03058	T.U.Lifting Cyl.	HZDPA.080.040 0710.1.001	4
20	07-31-03059	Cylinder	HZSAG250.244	1
21	07-31-03060	Cylinder	HZSAA205.243	1
22	07-31-03061	Cylinder	HZSIG63.401	1
23	07-31-03062	Cylinder	HZSIA63.402	1
24	07-31-03063	Cylinder	HZGB100.045. 0400.1	1
25	07-31-03064	Seal kit	UD50.100DS	12
26	07-31-03065	Seal kit	UD50.200DS	12
27	07-31-03066	Printed CCT	EK-813SV.002	10
28	07-31-03067	Printed CCT	EK-255LV006	1
29	07-31-03068	Printed CCT	EK-217LV.020	2
30	07-31-03069	Printed CCT	EK-275LV00	2
31	07-31-03070	Printed CCT	EK-715A.002	2
32	07-31-03071	Printed CCT	EK-277LV02	1
33	07-31-03072	Instrument	EL-T80.00E	4
34	07-31-03073	Voltmeter	EL-T439.00E	2
35	07-31-03074	Printed CCT	EL-T1163.00	2

I	CODE	DESCRIPTION	PART NUMBER	QTY.
36	07-31-03140	Printed CCT	EK-229LV.00	2
37	07-31-03141	Printed CCT	EK-249LV.00	1
38	07-31-03142	Printed C CT	EK-290LV.00	2
39	07-31-03143	Printed CCT	EK-79V.002	2
40	07-31-03144	Printed CCT	EK-16V.02B	2
41	07-31-03145	Printed CCT	EK-373LV-02	2
42	07-31-03146	Printed CCT	EK-423DV.00A	2
43	07-31-03147	Tamping Unit	UD10-201LI	1
44	07-31-03148	Tamping Unit	UD10-201RE	1
45	07-31-03149	Printed CCT	EK-80V.002	2
46	07-31-03150	PCCT	EL-T 1157-00	2
47	07-31-03151	Printed CCT	EL-SU-T59.00	1
48	07-31-03152	Printed CCT	EL-T-548-00	1
49	07-31-03153	Printed CCT	EL-T-998-00A	1
50	07-31-03154	Printed CCT	EL-T-1190-00A	2
51	07-31-03155	Printed CCT	EK-717A-00	1
52	07-31-03156	Printed CCT	EL-T895.01	1
53	07-31-03157	Printed CCT	EL-T1420.00	1

E- Spare parts list for Plasser & Theuerer Flash-Butt welding machine type – 355APK Serial No. 25,26,28 and 29.

I	CODE	DESCRIPTION	PART NUMBER	QTY.
1	07-31-03240	GM – Diesel Engine Model – 71237001	12V71 (71237001)	2
2	07-31-03241	Synchrone generator 290KVA, 1500 RPM, 400/231V 419A	Type: MSJ-228 LO4 F3B	2
3	07-31-03242	Powered axle complete Including all the items related to it according to drawing No.UD61.1001	UD 62.01 Gauge 1435	4
4	07-31-03243	Axle Spring	732073-MG650	32
5	07-31-03244	Shock absorber	E63.118	32
6	07-31-03245	Distribution gear	UD64.300 (S.T.46)	4
7	07-31-03246	Power shift transmission	CLARK R28462	2
8	07-31-03247	Hydraulic motor	4MB 038 F 8 N	2
9	07-31-03248	Welding machine	K355-1.01.00.001	1
10	07-31-03249	Solenoid	K355-01.02.100	4
11	07-31-03250	Slide valve	K355-01.02.200	4
12	07-31-03251	Reducer	K355-01.02.400	2
13	07-31-03252	Coil	K355-01.02.160	8
14	07-31-03253	Tie rod	K355-01.02.130	4
15	07-31-03254	Tie rod	K355-01.02.140	4
16	07-31-03255	Constant motor	SMF24 (S.T.7) with clutch hange K355.310.05	2
17	07-31-03256	Pressure relief valve	R4 VO3-533-10-A1	2
18	07-31-03257	Pressure relief valve	R1E02-1121-A1	2
19	07-31-03258	Wheel relief cylinder	UD50.100	16
20	07-31-03259	Support cylinder	UD50.50a	8
21	07-31-03260	Shear magnet	3M3	8
22	07-31-03261	Upset magnet	3M2	8
23	07-31-03262	Safety valve NHS 1- 7.5 bar	I 41782/075 S.T.35	2
24	07-31-03263	Brake cylinder BG12” O.H.	I 47933/585	8
25	07-31-03264	Rectifier	75GM24J3	4
26	07-31-03265	Compressor	70.615.10.102	2

I	CODE	DESCRIPTION	PART NUMBER	QTY.
27	07-31-03340	Electric gear shift	2.348.00	8
28	07-31-03341	Tachograph	1302-02	4
29	07-31-03342	Compressor	F4/140	2
30	07-31-03343	Heat exchanger	HX3700	2
31	07-31-03344	Oil cooler	S600/9/MU1	2
32	07-31-03345	Pressure regulating valve	SK-37521	2
33	07-31-03346	Minimum speed governor	R118 (312411)	2
34	07-31-03347	Control box	21402	4
35	07-31-03348	Upset rod	K355-1.01.01.700	4
36	07-31-03349	Magneto starter	PME III	8
37	07-31-03350	Magneto starter	PME 112	8
38	07-31-03351	Resistor PPB-3B	PPB-313-1K?	8
39	07-31-03352	Jaw for UIC60 rail	K355-26.03.26	10 set
40	07-31-03353	Shearing knife for UIC60 rail	K355-126.02.22	10
41	07-31-03354	Electro-pneumatic instrument	KEP-124E	4
42	07-31-03355	Elastic coupling	121.30/187.30 (0121300100180)	4
43	07-31-03356	Periflex disk clutch	PS 4280	4
44	07-31-03357	Brake block	UD212-33	20
45	07-31-03358	Voltage adjuster	RS5	4
46	07-31-03359	Control panel	K355M.05.02.001	2
47	07-31-03360	Starter 24V for GM diesel engine 12V-71	Series – 50MT Type – 400	2
48	07-31-03361	Governor for GM diesel engine 12V-71	Type 1434	2
49	07-31-03362	Ample dyne (VERSTARKER MOTOR)	EMY-3A	2
50	07-31-03363	Current conductor	K355-01.00.100	8
51	07-31-03364	Current conductor	K355-1.01.00.130	8

**F – Spare parts for MATISA Tamping Machine Type B 242 No. 10059**

	<b>Code</b>	<b>Description</b>	<b>Part Number</b>	<b>Qty.</b>
<b>1</b>	07-31-03440	<b>Clutch wheel</b>	<b>06.17.123.001.00</b>	<b>1</b>
<b>2</b>	07-31-03441	<b>Pneumatic valve</b>	<b>06.21.085.001.00</b>	<b>1</b>
<b>3</b>	07-31-03442	<b>Pneumatic valve assy.</b>	<b>06.21.096.001.00</b>	<b>1</b>
<b>4</b>	07-31-03443	<b>Module EPM1</b>	<b>06.40.096.001.00</b>	<b>2</b>
<b>5</b>	07-31-03444	<b>Washer</b>	<b>06.72.108.001.00</b>	<b>4</b>
<b>6</b>	07-31-03445	<b>Silent block</b>	<b>06.72.112.001.00</b>	<b>4</b>
<b>7</b>	07-31-03446	<b>Socket</b>	<b>06.72.115.001.00</b>	<b>32</b>
<b>8</b>	07-31-03447	<b>Conical socket</b>	<b>06.72.120.001.00</b>	<b>8</b>
<b>9</b>	07-31-03448	<b>Socket</b>	<b>06.72.136.001.00</b>	<b>2</b>
<b>10</b>	07-31-03449	<b>Socket</b>	<b>06.72.164.001.00</b>	<b>8</b>
<b>11</b>	07-31-03450	<b>Dust washer</b>	<b>06.72.165.001.00</b>	<b>8</b>
<b>12</b>	07-31-03451	<b>Balance beam</b>	<b>06.80.396.900.00</b>	<b>2</b>
<b>13</b>	07-31-03452	<b>HY Cylinder</b>	<b>06.81.124.100.00</b>	<b>1</b>
<b>14</b>	07-31-03453	<b>Pneumatic Cyl.</b>	<b>06.81.127.001.00</b>	<b>4</b>
<b>15</b>	07-31-03454	<b>Brace</b>	<b>06.81.140.001.00</b>	<b>2</b>
<b>16</b>	07-31-03455	<b>Fastening</b>	<b>06.81.157.001.00</b>	<b>4</b>
<b>17</b>	07-31-03456	<b>Rack</b>	<b>06.81.159.001.00</b>	<b>1</b>
<b>18</b>	07-31-03457	<b>Cylinder</b>	<b>06.83.100.001.00</b>	<b>2</b>
<b>19</b>	07-31-03458	<b>Screw</b>	<b>16.14.005.507.00</b>	<b>4</b>
<b>20</b>	07-31-03459	<b>Hock</b>	<b>25.28.186.001.00</b>	<b>2</b>
<b>21</b>	07-31-03460	<b>End piece</b>	<b>23.29.111.001.00</b>	<b>2</b>
<b>22</b>	07-31-03461	<b>Pneumatic Cyl.</b>	<b>25.13.119.001.00</b>	<b>1</b>
<b>23</b>	07-31-03462	<b>Steel cable</b>	<b>90.180.0020.001</b>	<b>400m</b>
<b>24</b>	07-31-03463	<b>Distributor</b>	<b>91.141.001.195.0</b>	<b>1</b>
<b>25</b>	07-31-03464	<b>Distributor</b>	<b>91.141.006.145.0</b>	<b>1</b>
<b>26</b>	07-31-03465	<b>Distributor</b>	<b>91.141.010.212.0</b>	<b>1</b>
<b>27</b>	07-31-03466	<b>Distributor</b>	<b>91.141.016.156.0</b>	<b>1</b>
<b>28</b>	07-31-03467	<b>Distributor</b>	<b>91.141.016.157.0</b>	<b>1</b>
<b>29</b>	07-31-03468	<b>Distributor</b>	<b>91.141.016.179.0</b>	<b>2</b>
<b>30</b>	07-31-03469	<b>Distributor</b>	<b>91.141.022.187.0</b>	<b>1</b>
<b>31</b>	07-31-03470	<b>Motor</b>	<b>91.142.057.095.0</b>	<b>2</b>
<b>32</b>	07-31-03471	<b>Motor</b>	<b>91.142.062.104.0</b>	<b>1</b>
<b>33</b>	07-31-03472	<b>Motor</b>	<b>91.142.112.104.0</b>	<b>2</b>
<b>34</b>	07-31-03473	<b>Triple pump</b>	<b>91.143.001.220.0</b>	<b>1</b>
<b>35</b>	07-31-03474	<b>Triple pump</b>	<b>91.143.039.163.0</b>	<b>1</b>
<b>36</b>	07-31-03475	<b>Twin pump</b>	<b>91.143.139.235.0</b>	<b>1</b>
<b>37</b>	07-31-03476	<b>Twin pump</b>	<b>91.143.139.236.0</b>	<b>1</b>

	<b>Code</b>	<b>Description</b>	<b>Part Number</b>	<b>Qty.</b>
<b>38</b>	07-31-03540	<b>Silent Block</b>	<b>91.294.078.700.0</b>	<b>8</b>
<b>39</b>	07-31-03541	<b>Belt</b>	<b>91.373.301.120.0</b>	<b>4</b>
<b>40</b>	07-31-03542	<b>Potentiometer</b>	<b>91.731.049.001.0</b>	<b>2</b>
<b>41</b>	07-31-03543	<b>Potentiometer</b>	<b>91.731.050.001.0</b>	<b>2</b>
<b>42</b>	07-31-03544	<b>Voltmeter</b>	<b>91.764.021.001.0</b>	<b>1</b>
<b>43</b>	07-31-03545	<b>Voltmeter</b>	<b>91.764.025.001.0</b>	<b>1</b>
<b>44</b>	07-31-03546	<b>Voltmeter</b>	<b>91.764.102.001.0</b>	<b>2</b>
<b>45</b>	07-31-03547	<b>Voltmeter</b>	<b>91.764.106.001.0</b>	<b>1</b>
<b>46</b>	07-31-03548	<b>Filter element</b>	<b>92.138.041.501.0</b>	<b>10</b>
<b>47</b>	07-31-03549	<b>Filter element</b>	<b>92.138.049.501.0</b>	<b>10</b>
<b>48</b>	07-31-03550	<b>Filter element</b>	<b>92.138.051.501.0</b>	<b>10</b>

**G – Spare parts for powered ganger’s trolley ( Robel ) Type 54.17**  
**Serial no. 54.17-4-AF12 , AF14 , AF16 , AF17 , AF18 , AF20 ,**  
**AF21 .**  
**Engine ( Duetz ) serial no. 6584939 , 6584942 , 6584943 , ...,**  
**6584948 .**

	<b>Code</b>	<b>Description</b>	<b>Part Number</b>	<b>Qty.</b>
<b>1</b>	07-31-03640	<b>Drive engine KHD F8L413</b>	<b>BAM-17-4-98.01</b>	<b>5</b>
<b>2</b>	07-31-03641	<b>6 – Speed transmission CLARK model R28666-15</b>		<b>6</b>
<b>3</b>	07-31-03642	<b>Torque converter CLARK model C272.5-86</b>		<b>6</b>
<b>4</b>	07-31-03643	<b>HIAB Crane model 965AW</b>		<b>5</b>
<b>5</b>	07-31-03644	<b>Brake jaw complete</b>	<b>4 ; 92.01</b>	<b>100</b>

**IRRC – REQUIREMENT OF CARS, BUSER AND  
CONSRUTION MACHINES, THROUGH M.O.U. PHASE NO.7**

<b>ITEM</b>	<b>Cod</b>	<b>DESCRIPTION</b>	<b>QTY</b>
1	07-31-03740	MEDIUM BUS (21 SEATS)	20
2	07-31-03741	LANDCERUISER (9 SEATS)	16
3	07-31-03742	1 TON PICK-UP CAR (DOUBLE CAINES –SEATS)	16
4	07-31-03743	HEAVY DUTY TRUCK(36TON)	10
5	07-31-03744	SHOVEL (WHEEL LOADER, BUCKET – SIZE 2.6 M <sup>3</sup> )	3
6	07-31-03745	BULLDOZER (BLADE LENGTH 4m)	2
7	07-31-03746	GRADER (BLADE LENGTH 3.65 m)	2
8	07-31-03747	Tyre roller (10 tom)	1
9	07-31-03748	STEEL ROLLER (10 TON WITH VIBRATOR)	1