



## Maintenance Operating Instruction for 44 Class Locomotive

### Removing Shell for Maintenance

You must first remove the front and rear coupler (refer to attached exploded drawing). Note that the coupler pocket and coupler screw must be removed in order to remove the coupler. Grasp on both sides of the shell with your thumbs and separate the shell and the powered part. If the chassis doesn't separate, gently shake the locomotive until the shell and chassis separate.

### Lubrication and Cleaning

#### *Frequency*

As with any precision mechanical equipment, occasional lubrication and maintenance is required for optimum performance. The locomotives, with their precision-engineered reduction gears, motor and chassis need only occasional, careful lubrication and cleaning.

- Model used infrequently or not at all should not be lubricated more often than once a year. Excessive amounts of lubricant can migrate to the driver tires and cause reduced tractive force and grime on rail heads.
- Models which are run often and pull long consists on grades should be inspected and lubricated every two or three months.

#### *Instructions*

**Bearing Areas.** A small patch of cloth held with tweezers should be used to clean bearing areas before lubrication. With the model upside down, place a drop of light oil at each wheel bearing. Do not over lubricate.

**Worm Gears.** By removing the body shell, the snap-on covers over the drive worms can be removed. Light grease should be applied to the worm gear with a toothpick.

**Idler Gears.** A drop or two of light oil can also be applied to the plastic idler gears below the worm gear. As they are made from slippery plastic, the gears require little maintenance.

#### **To Obtain Warranty Parts:**

1. Identify parts in attached exploded drawing and locate the part number for which part you need for maintenance.
2. Inform Trainorama the part number for which part you need for maintenance. Allow us 2-3 weeks for delivery.

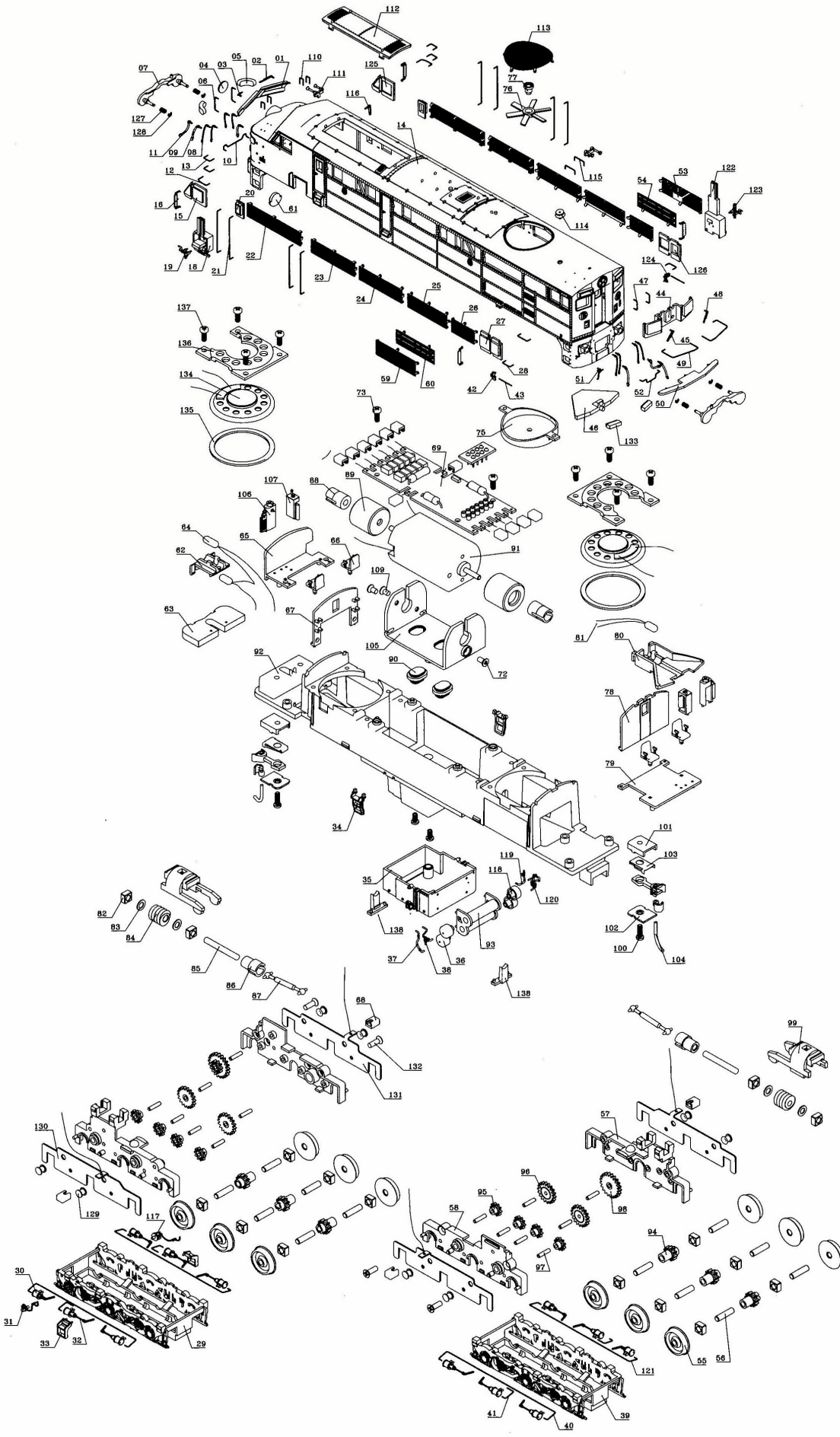
Trainorama Company Address: 1001 VICTORIA RD WEST RYDE

Telephone number: 98096948

Fax: 98090650

Post Code: 2114

2069E001	Motor Assembly(72/88/89/90/91/109/105)
2069E002	Fuel Assembly (35/36/37/38/93/118/119/120)
2069E003	Coupler Complete(100/101/102/103/104)
2069E004	Staff Exchange Pair(18/19/122/123)
2069E005	Etching Grille Set(16/22/23/24/25/26/53/54/59/60/113)
2069E006	BogieAssembly(Front)( 29/30/31/32/33/40/41/55/56/57/58/68/82/94/95/96/97/98/117/121/ 129/130/131/132)
2069E007	BogieAssembly(Rear)( 30/32/39/40/41/55/56/57/58/68/94/95/96/97/98/121/129/130/131/ 132)
2069E008	Worm Shaft Assembly(82/83/84/85/86/87/99)
2069E009	Clear Parts(01/04/05/15/20/27/44/46/61/63/125/126/133)
2069E010	Inster Cab Parts(62/65/66/67/78/79/80/106/107)
2069E011	Speaker Assembly(134/135/136/137/138)
2069E012	Plastic Detail Parts(02/03/08/09/11/34/42/45/48/50/51/75/76/77/111/112/114/116/124)
2069E013	Metal Grabiron Parts(06/10/12/13/21/28/43/47/49/52/110/115)
2069E014B	Buffer Complete for 44Class Series 3 (07/127/128)
2069E015	Driver Figure(4pcs Figure)
2069E016	Bulb&Wire Holder(64/81/68)
<b>Optional Part Assembly (44 Class Series 3)</b>	



138	BLOCK PART
137	SCREW FOR SPEAKER HOLDER
136	SPEAKER HOLDER
135	RUBBER PAD FOR SPEAKER
134	SPEAKER
133	REAR NUMBER BOARD(FOR 44 CLASS S2/S3)
132	SCREW FOR GEAR BOX
131	WHEEL CONTACT PLATE RIGHT
130	WHEEL CONTACT PLATE LEFT
129	EYELET
128	E-RING FOR BUMPER
127	SPRING OF BUMPER
126	GLASS AT BODY REAR SIDE--R
125	CAB SIDE/CREW DOOR GLASS--R
124	FOOT FOR GRABIRON--R
123	WATER PIPE RIGHT(FOR 44 CLASS)
122	WATER TANK BOX RIGHT(FOR 44 CLASS)
121	LONG BRAKE CYLINDER PIPE LEFT
120	AIR HOSE RIGHT A(FOR 44 CLASS)
119	AIR HOSE RIGHT B(FOR 44 CLASS)
118	AIR TANK COVER--R(FOR 44 CLASS)
117	R SPEEDOMETER
116	HANDLE AT THE FRONT PILOT
115	ROOF&SIDE GRABIRON(FOR 44 CLASS)
114	TOP WATER FILLER LID
113	FAN COVER GRILL
112	TOP COVER(FOR 44 CLASS)
111	FRONT&REAR HORN(FOR 44 CLASS)
110	GRABIRON ON TOP OF NOSE(FOR 44 CLASS)
109	SCREW FOR MOTOR
107	CAB INTERIOR SEPARATE PART B
106	CAB INTERIOR SEPARATE PART A
105	MOTOR SADDLE
104	L/L PROTO 2000 COUPLER
103	PROTO 2000 COUPLER SPRING
102	COUPLER COVER
101	COUPLER POCKET
100	SCREW FOR COUPLER POCKET
99	WORM COVER
98	COMPOUND GEAR
97	GEAR AXLE
96	LARGER IDLER GEAR
95	SMALL IDLER GEAR
94	DRIVING GEAR
93	TWIN CYLINDRICAL GAS TANK(FOR 44 CLASS)
92	CHASSIS
91	MOTOR
90	MOTOR BASE
89	FLYWHEEL
88	FLY WHEEL JOINT
87	DRIVING SHAFT
86	WORM JOINT
85	WORM SHAFT
84	WORM (DOUBLE HEAD)
83	PVC WASHER
82	SINTERED OILLESS BRONZE
81	BULB(8.0X8.5mm)
80	LIGHT COVER(REAR)
79	CAB INTERIOR REAR
78	CAB CLAPBOARD REAR
77	FAN STICK
76	FAN
75	FAN SUPPORT
73	SCREW FOR PCB(BIG)
72	SCREW FOR MOTOR
69	PCB(BIG)
68	WIRE HOLDER FOR PCB
67	CAB CLAPBOARD FRONT
66	CHAIR
65	CAB INTERIOR FRONT
64	BULB
63	NUMBER PLATE LIGHT BAR(FOR 44 CLASS)
62	LIGHT COVER(FRONT)
61	FRONT HEADLIGHT LENSES
60	SIDE GRILL 8 LEFT
59	SIDE GRILL 7 LEFT (FOR 44 CLASS)
58	RIGHT GEAR BOX
57	LEFT GEAR BOX
56	WHEEL SHAFT
55	WHEEL
54	SIDE GRILL 8 RIGHT
53	SIDE GRILL 7 RIGHT (FOR 44 CLASS)
52	REAR COUPLER HANDRAIL
51	COUPLER RELEASE LEVER
50	ANTICLIMBER AT BODY REAR SIDE
49	ANGLED HANDRAIL AT REAR SIDE
48	WIPER REAR RIGHT
47	GRABIRON AT REAR DOOR SIDE
46	REAR HEADLIGHT
45	WIPER REAR LEFT
44	REAR DOOR WINDOW GLASS
43	LOWEST GRABIRON AT BODY REAR SIDE
42	FOOT FOR GRABIRON--L
41	SHORT BRAKE CYLINDER PIPE
40	LONG BRAKE CYLINDER PIPE RIGHT
39	REAR TRUCK(3 AXLE)
38	AIR HOSE LEFT B(FOR 44 CLASS)
37	AIR HOSE LEFT A(FOR 44 CLASS)
36	AIR TANK COVER--L(FOR 44 CLASS)
35	FUEL TANK(FOR 44 CLASS)
34	MIDDLE DOOR STEP
33	TRUCK STEP
32	BRAKE CYLINDER B
31	L SPEEDOMETER
30	BRAKE CYLINDER A
29	FRONT TRUCK(3 AXLE)
28	GRABIRON AT BODY REAR SIDE
27	GLASS AT BODY REAR SIDE--L
26	SIDE GRILL 6
25	SIDE GRILL 5
24	SIDE GRILL 4
23	SIDE GRILL 3
22	SIDE GRILL 2
21	SIDE DOOR HANDRAIL
20	SIDE WINDOW GLASS
19	WATER PIPE LEFT(FOR 44 CLASS)
18	WATER TANK BOX LEFT(FOR 44 CLASS)
16	WIND REFLECTOR
15	CAB SIDE/CREW DOOR GLASS--L
14	BODY(FOR 44 CLASS SERIES 3)
13	SHORT GRABIRON AT NOSE/REAR SIDE(FOR 44 CLASS)
12	LONG GRABIRON AT NOSE(FOR 44 CLASS)
11	TRAIN LINE B(FOR 44 CLASS)
10	FRONT COUPLER HANDRAIL
09	TRAIN LINE A(FOR 44 CLASS)
08	MU HOSE(FOR 44 CLASS)
07	BUMPER PLATE(FOR 44 CLASS SERIES 2&3)
06	GRABIRON IN THE FRONT OF NOSE(FOR 44 CLASS)
05	NUMBER PLATE
04	PRISM FOR FRONT HEADLIGHT
03	WIPER FRONT LEFT
02	WIPER FRONT RIGHT
01	CAB FRONT WINDOW GLASS

BASIC LIST FOR HO CLASS SERIES 3