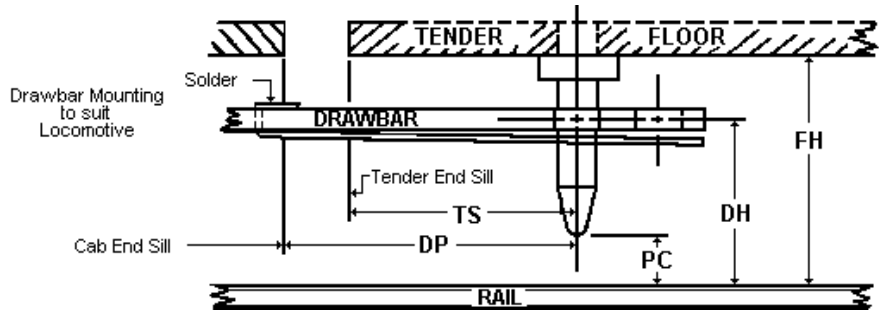


NMRA RECOMMENDED PRACTICES	
LOCOMOTIVE --- TENDER DRAWBAR and PIN RELATIONSHIP	
RP-37	Approved: Mar. 1997

NMRA RECOMMENDED PRACTICES RP-37 Locomotive - Tender Drawbar and Pin Relationship

This sheet establishes the parameters involved in "standardizing" the relationship between locomotive Drawbar and tender pivot Pin commonly used to conduct current between the tender and the locomotive, while facilitating Interchange of complete tenders between locomotives.



The Drawbar is considered a permanent part of the locomotive. Its attachment is customarily by a spring-loaded bolt, insulated from the locomotive frame, that maintains constant electrical contact thruout its arc of swing. Since each locomotive differs in its mounting details, this sheet specifies only the height of the Drawbar above railhead, its general size, and its projection beyond the floor of the locomotive cab.

This projection will vary, dependent upon the type of tender truck and location under the tender of the mating pivot Pin.

Changing tender trucks from one type to another, viz, from four wheel to six wheel, with no change in bolster location, requires no change in Drawbar or Pin location, but if the change entails relocating the bolster, both the Drawbar projection and the Pin location should change accordingly in order to maintain constant spacing between locomotive and tender.

A locomotive backing against its tender thru the Drawbar introduces a skewing action that throws the engine and its tender out of line with each other. The load of a train behind the tender accentuates this action. The longer the Drawbar, with pivot centers at, or near, the rear driver and the front tender truck bolster, the less this action will be, but this is seldom feasible in most models.

Buffers are used in the prototype to reduce the skewing tendency, but are also seldom seen in model locomotives. An aesthetic simulation of these buffers has been the use of dark foam plastic between the end sills of the locomotive cab and the tender, but these can be counted on to serve only a small part of the prototype buffer action.

DRAWBAR and PIN RELATIONSHIP

SCALE	Floor Height FH	Tender Pin Setback			Drawbar Projection		
		4-wheel TS-4	6-wheel TS-6	Centipede TS-Cent	4-wheel DP-4	6-wheel DP-6	Centipede DP-Cent
O On3							
S Sn3							
HO HOn3	7/16"	1/4"	3/8"	1/2"	3/8"	1/2"	5/8"
TT TTn3	23/64"	3/16"	9/32"	3/8"	9/32"	3/8"	15/32"
	9/32"	3/16"	9/32"	3/8"	9/32"	3/8"	15/32"