Lawrence Berkeley Laboratory - University of California **Engineering Note**		Code SR0210	Serial M7724	STAR Doc # SN 0373	Page 1 of 1
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Program

Solenoidal Tracker at RHIC

Sub program

Time Projection Chamber - Assembly and Test

Title

Weight of TPC and TPC Supported Hardware

Introduction:

The following table contains the weight of the Time Projection Chamber's (TPC) components, TPC supported hardware and detector subsystems. The weight categories correspond to various phases of the TPC's construction and installation. Max LBNL was the weight during transcontinental shipping, Max BNL Lift is the weight at the time of installation into the STAR Magnet, Installed Wt. W/CTB is the weight with all 120 CTB modules mounted, Installed Wt. W/TOF assumes all Central Trigger Barrel modules have been replaced with Time of Flight modules. The basis for the weights shown is listed in the right hand column. Where the weight of an item is a significant portion of the total, either a detailed accounting of the volume and density of its constituents or direct measurement was used.

Weight of TPC (lb.)

Item	Max LBNL	Max BNL Lift	Installed Wt. w/ CTB	Installed Wt. w/ TOF	Basis
IFC	107	107	107	107	close est
OFC	4991	4991	4991	4991	close est
Wheel	3100	3100	3100	3100	measured
Wheel Brkts/Adj	227	227	227	227	rough est
TOF rails	1080	1080	1080	1080	exact
Outer Sectors	2520	2520	2520	2520	measured
Inner Sectors	1752	1752	1752	1752	close est 75# ea,
Gas Manifolds at wheel	0	0	200	200	removed for lift
FEE	128	1539	1539	1539	measured
FEE Manifolds	480	480	480	480	rough
RDO	51	607	607	607	close est.
RDO manifolds	15	360	360	360	rough
RDO/FEE Cable	39	468	468	468	close est
Dist Manif/hose	240	390	390	390	rough
CTB modules (120 ea.)	0	660	3960	0	measured/ 33# ea.
TOF modules (120 ea.)	0	0	0	4800	Est, G.Mutchler 9/98
TOF cables/hose	0	0	240	240	rough
RDO elect. brkts	24	24	24	24	rough
SVT, Cone Assy &SSD	0	0	365	365	Mech Des Rev 3/98
FTPC	0	0	809	809	FDR action item 1
TOTAL	14753	18304	22409	23249	

Notes:

TPC partially populated with CTB (20 of 120) at initial installation

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