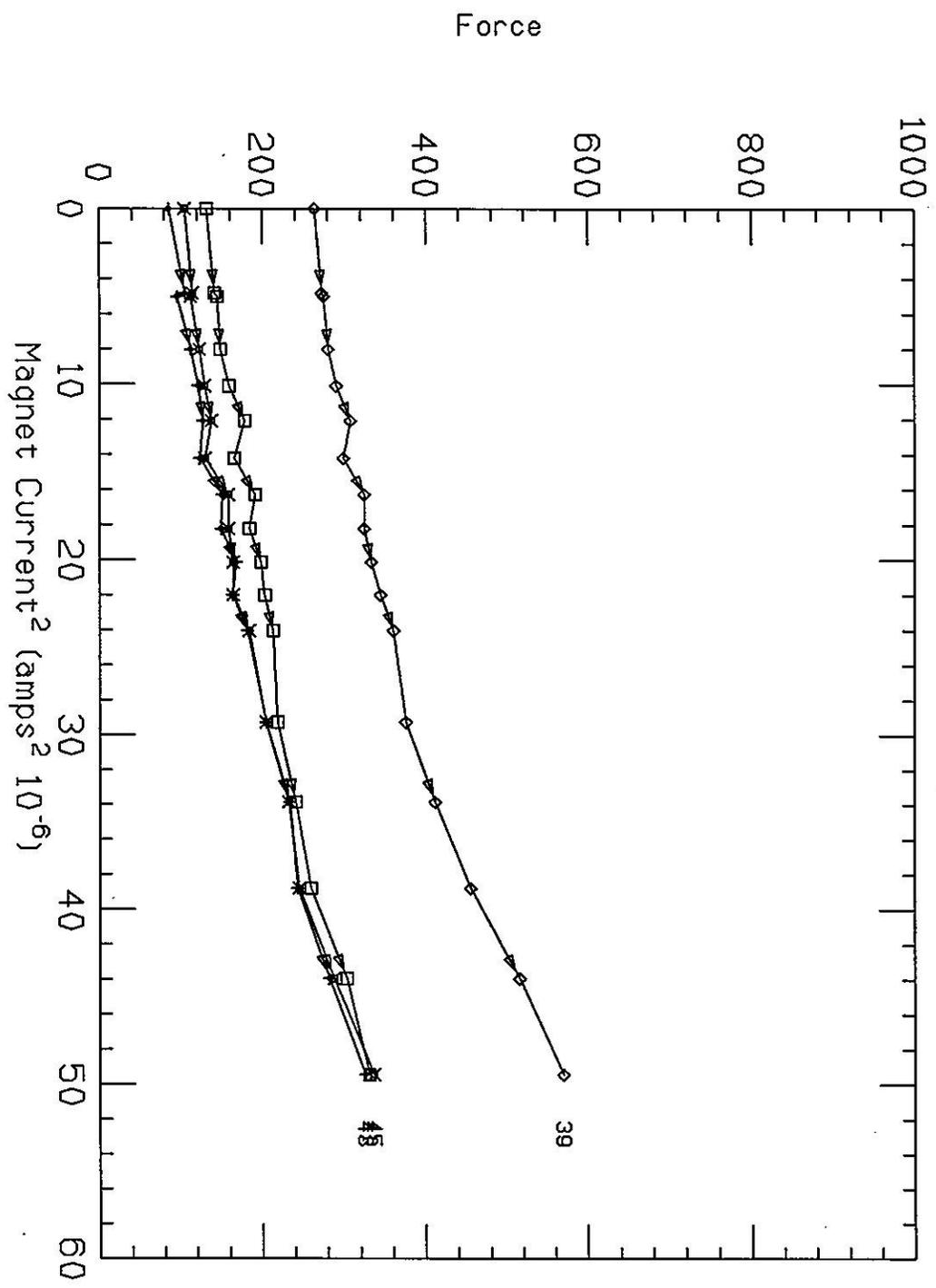


From: FNAL::JBS 21-MAY-1991 21:53:25.07
To: DELCHAMPS, GOURLAY, KOSKA, JAFFERY, LAMM, WAKE
CC: MYSELF
Subj: DSA323 End Force and the "unusual" quench behavior

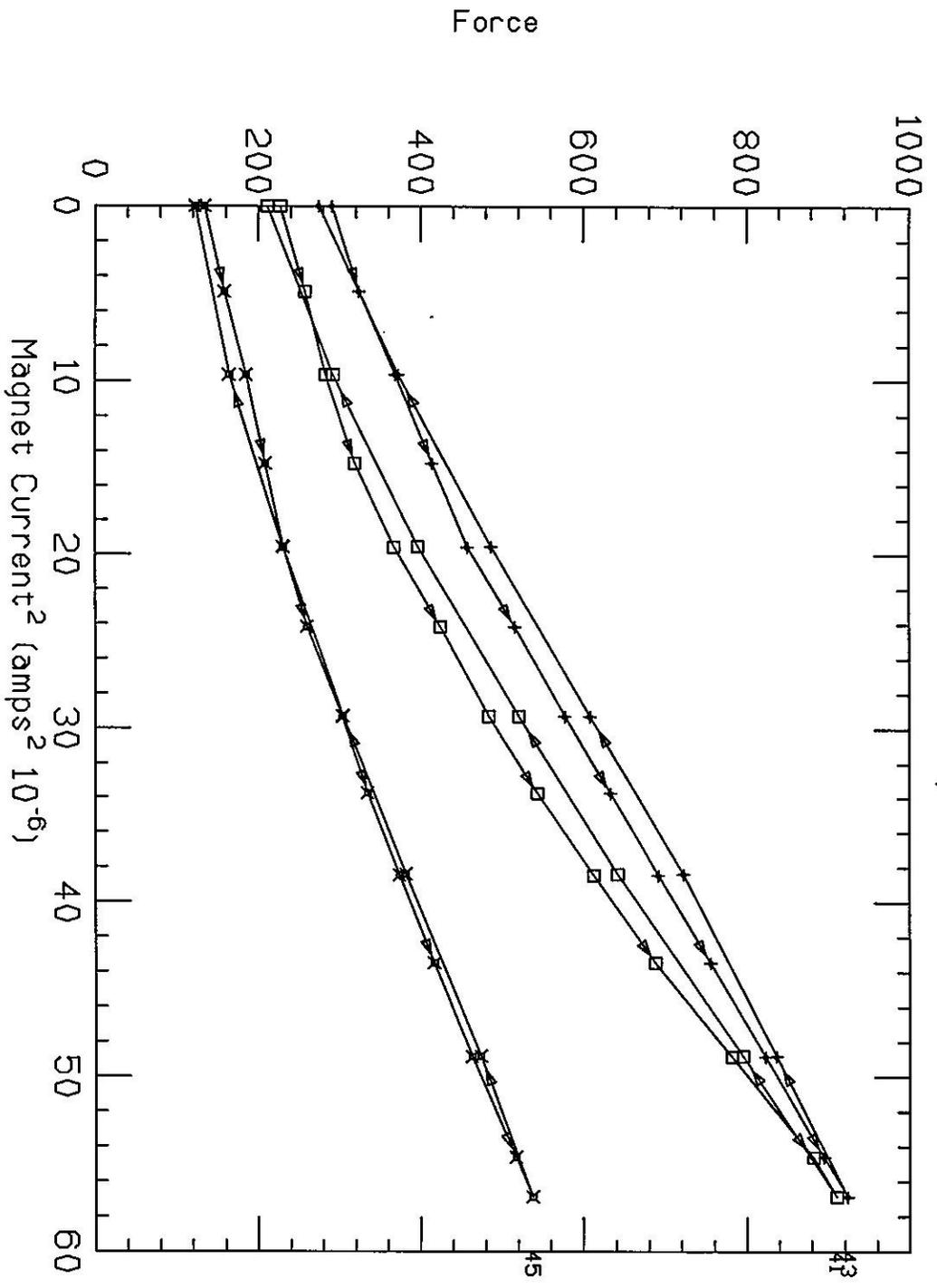
TSS-SSC 91-095

Perhaps the problem with DSA323 is inadequate end loading. Several magnets at BNL have shown relatively poor quench performance when the end pre-load was too low. (Of course at least one short magnet at each Lab has worked well without end preload as well.) The bullet gauges on DSA321 showed a substantially smoother, more linear, and steeper slope with excitation than those on DSA323. (I attach TopDrawer plots of "typical" data from each magnet.) Although it will slow further the test schedule in Lab 2 I think that we ought seriously to consider doing one more thermal cycle on this magnet. When the magnet is warm we would tighten the return end bullets to, say 500 lbs force per bullet, up from the 200 lbs apiece that we normally use, and tighten the lead end set screws to the same torque used to set up the return end bullets. This offers us an opportunity to learn something about the importance of end loading.

BULLET GAUGES



BULLET GAUGES



DSA321

File: DSA321.CA006

7-JAN-91 15:39:27

21-MAY-91 18:16:31