



PMAI Newsletter

Every generation has some fool who will speak the truth as he sees it! Boris Pasternak

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A NEW BOARD AT THE HELM OF PMAI CHOSEN

The 35th National Convention and Annual General Meeting of the Philippine Metalcasting Association was held on June 21, 2007 at the Sulô Hotel in Quezon City.

The newly chosen members of the PMAI Board of Directors are:

Tomas Merdegia, Jr.	295	votes
Napoleon Tanganco	295	“
Johnny Tan	291	“
Michael Ang	287	“
Kim Sin Ongkauco	262	“
Harvey Ong	258	“
Joseph Navarro	220	“

The incoming President is Danny Pangani-ban of Mary Check Trading who promises “to cross the line and not just stare at it.” Here are excerpts from his inaugural speech.

“As tradition has it, at about this time, we automatically review the present state of our Industry and try to formulate solutions to avert disaster. Here are the major problems obtaining today.

1. *Scrap metals are being exported and, if available, the cost is high.*
2. *The present electric power cost is also unreasonably high, and still getting higher.*
3. *Productivity in foundries is very low due to a low level of mechanization. Most of our foundries are set back at least fifty years because of this.*
4. *The importation of second-hand machinery is preventing the industry from embarking on an honest-to-goodness machine-building program. This country needs a good **Machine-building Industry** if it wants to align itself with the more progressive, more advanced countries. **This can be done by the Metalworking Sector working synergistically with our Metalcasting Sector.***

5. *Technical smuggling is another problem that needs to be controlled. This has existed for so long that it seems to be already the “correct and only procedure.”*

*Friends, these are our problems that seem to defy solution; but the New PMAI Board and I will try our best to provide solutions during our one-year tenure. Somewhere, I think **I saw a Five-Year Program laid out for our Industry.** I will try to dig this up and see what merits there are to it.*

*I do not want to talk for so long as I am a person of few words, especially when solutions to our problems are for long-term application. But I would like to let you know that: **“This time we will not just stare at the line, we will cross it and try to manage the consequences as best as we could.”***

Furthermore, we may add:

In our endeavors we have very competent allies. As we look back, we find that the Association has a very satisfactory record of cooperation with foreign similar industrial association; but the most outstanding is its relationship with Japanese Associations and government agencies, most notably JICA, JETRO, ECC, JFS, and APO-JPC.

We intend to continue working amicably with these agencies and maximize our benefits by prudent applications of decided courses of action. We respect their very valuable opinions gathered from many years of experience.

But, all of the foregoing cannot be done by your PMAI Board alone. We need your support — intellectually, physically, morally, and most importantly, financially. Projects cost time, effort, resources and money; but these can be viewed as not actually costs but investments. Can you make the investments? We want to depend on you, will you let us up?

TIPS ON

ELECTRICAL ENERGY

COMPRESSED AIR

- Every 5°C reduction in intake temperature would result in 1% reduction in compressor power consumption.
- Compressed air leak from a 1 mm hole size at 7 kg/cm² pressure would mean a power loss equivalent to 4500KWH per year.
- A reduction of 1 kg/cm² of air pressure (for instance from 8 kg/cm² to 7 kg/cm²) would result in a 9% input power savings.

REFRIGERATION-

- Refrigeration capacity is reduced by 6% for every 3.5°C increase in condensing temperature.
- Reducing the condensing temperature by 5.5°C, results in a 20-25% decrease in compressed power consumption.
- A reduction of 5.5°C in cooling water temperature at the condenser outlet, reduces compressor power consumption by 3%.
- A 1 mm. scale build-up on the condenser tubes can increase energy consumption by 40%.

LIGHTING-

- Ensure proper illumination and efficacy (lumens/watt).
- Install photocells.
- Use timers.
- Retrofit occupancy sensor.
- Use servo-stabilizer in the lighting circuit.
- Replace High Pressure Mercury-Vapor lamps with High Pressure Sodium-Vapor lamps.
- Replace conventional chokes with electronic chokes.

THE WAY TO GO!

I would like to reminisce for a while and ponder over our present plight in the Metal Engineering Industry. We are supposed to sell “engineering,” where the design makes the difference, and not mere “products.” Looking back at the past ten years or so helps us in envisioning what we have and what we can do. Let’s do just that!

PRODUCTION DATA FOR YEARS 1996-2002

FOR ALL METALS:

	1996	1997	1998	1999	2000	2001	2002	%CGR
Cast Iron	467,755	419,748	362,928	352,776	313,560	281,376	252,984	- 9.72
Cast Steel	51,132	66,420	52,140	55,920	61,740	70,920	85,044	8.85
Cast Bronze	61,476	41,244	33,228	34,920	45,420	43,572	42,528	- 5.96
Cast Alum.	303,960	306,000	190,740	212,160	161,160	137,520	117,348	- 14.67
Total in T	898,644	833,412	639,036	655,776	581,880	533,388	497,904	- 9.37

FOR CAST IRONS:

	1996	1997	1998	1999	2000	2001	2002	%CGR
Gray Iron	466,164	408,204	351,072	342,792	301,392	370,000	242,340	- 10.33
Ductile Iron	15,912	11,544	11,856	9,984	12,168	11,376	10,644	- 6.48
Malleable Iron	nil	nil	nil	nil	nil	nil	nil	0.00
Total in T	482,076	419,748	362,928	352,776	313,560	381,376	252,984	- 10.19

FOR CAST STEELS:

	1996	1997	1998	1999	2000	2001	2002	%CGR
C/Low Alloy Steel	6,000	23,700	25,500	32,400	25,500	36,612	52,572	43.58
High Alloy Steel	45,132	42,720	26,640	23,520	36,240	34,308	32,472	- 5.34
Total in T	51,132	66,420	52,140	55,920	61,740	70,920	85,044	8.85

FOR NON-FERROUS CASTINGS:

	1996	1997	1998	1999	2000	2001	2002	%CGR
Bronze (Cu-base)	54,780	34,980	27,720	31,680	33,000	29,076	25,608	- 11.90
Brass (Cu-Zn)	6,696	6,264	5,508	3,240	12,420	14,496	16,920	16.71
Total Cu-base	61,476	41,244	33,228	34,920	45,420	43,572	42,528	- 5.96
Total Al-base	303,960	306,000	190,740	212,160	161,160	137,520	117,348	- 14.67
Total Non-Fe	365,436	347,244	223,968	247,080	206,580	181,092	159,876	- 12.87

PERCEPTIONS:

The general trend for the years 1996-2002 is negative; except for carbon and low-alloy steels and brasses, which chalked up growths of 43.58% for steels and 16.71% for brasses. The carbon steels are for general usage, the low-alloy steels are usually for heavy equipment and mill parts, while the brasses are mostly for plumbing fittings.

It is my humble but considered opinion that embarking on the **manufacture of heavy equipment**, under license if needed, like forklifts, payloaders, bulldozers, crawler cranes, excavators, graders, etc. is the right way to go today. Notice that these are relatively less demanding to produce than automobiles and vans and are less sensitive to style-changes, and most importantly, possibly have a higher value-added in pricing vs. production cost. It is the best course to take for the Metal Engineering Industry. While the whole world is deeply engrossed and bent on producing the most desirable automobile at the least possible cost, heavy equipment manufacturers like Caterpillar, John Deere, Hitachi, Komatsu, etc. are taking it easy and are leisurely incorporating improvements in their designs, unbothered by the frenzy going on in other manufacturing fields — their equipment are built for ease and effectiveness of usage, rather than style and comfort (a scratch on the body-paint would hardly be given any notice). Yes, this is definitely the way to go!

*Prof. John Hermes D. Bautista, PMAI
Technical Consultant*