

Farewell, bushes and pecks

Metric? It's the new wave

By DELL McCLOY

Despite some opposition and consternation at the "grassroots" level, "going metric" is becoming a way of life across the United States.

You've already seen it in the grocery store, along the highway, at work. The reasons for converting to the European-based system from the traditional inches, pounds, bushels and pecks are, well, the intricacies of understanding inches, pounds, bushels and pecks.

People in this country understand them, all right.

But the United States' measurement system just doesn't fit in a world that is becoming more homogenized and interrelated, especially in the field of big business.

And, like it or not, the future of Michigan—and suburban Detroit, in particular—is tightly tied to big business, especially the highly-competitive automobile industry and related enterprises.

Usually a leader in all things industrial, the United States finds itself in the position of being the only major nation in the world that still officially utilizes a non-metric measurement system.

Even staid, economically-troubled England, where our ponderous system got its roots, succumbed to the one-world philosophy of standardization in 1965 and adopted the metric system as its official method of measurement.

It took the United States Congress, on the other hand, until 1975 to adopt the Metric Conversion Act, which states that it shall be the policy of the nation to convert to the standardized system.

The only problem—or boon, if you're on the other side of the issue—is that no timetable was established and the act leaves going metric or staying with the present system up to involved sectors of the nation.

The act called for creation of what is known as the National Metric Board, a 17-member panel which will oversee conversion as sectors feel such moves will be beneficial and attempt to make them "as effective and painless as possible," in the words of a spokesperson for the board.

That panel has been in existence since June of last year.

But the metric movement was in existence a long time before the federal

government finally got into the act.

Michigan educational leaders saw that it was going to be a fact of life as far back as 1974 when the state board of education adopted a resolution, calling for all mathematics and science textbooks to be used after June 1976, to contain the metric system as the dominant system of measurement.

Leaders in the automotive industry saw it even before that, thanks to the international nature of their business, and were in the forefront of the move to standardize measurement methods.

Why?

For one thing, they say, it will save money in the long run.

And when you're in a business as competitive as manufacturing automobiles and trucks, that's an important reason for doing anything.

This is not to say that the conversion is an inexpensive process. It costs a bundle. But manufacturers have found that it is only costing them about four per cent of original estimates to make the changeover.

Some of the long-term benefits:

- Standardization of tools and tooling methods.
- Simplified parts inventories.
- Higher cross-use of components from vehicle line to vehicle line.

• Better international understanding of specifications and more common use of those specifications.

The whole movement was put into perspective by Stan Mallen of Farmington, who serves as metrication planning manager at Ford Motor Company's international headquarters in Dearborn.

"The thing to understand is the primary benefits (of metrication) are in international commerce.

"The world is shrinking and the best way to communicate internationally is to standardize measurement methods.

"When it comes to making a choice of methods," he said, "the simplest method is the one you choose, especially when the other nations of the world use it."

Mallen further defined the need for metrication with the following statement:

"If oral language and written language were the same around the world, we could all communicate with more ease. In technical language, units of measurement are the language. It follows that one language (the metric system) is better."

Metrication, according to Mallen, leads to a tremendous simplification of standard products, such as nuts and bolts.

"It also lends itself to interchangeability of parts, such as piston rings, fan belts and pulleys. These things are really functional, rather than esthetic.

"What we want to do is give the customer the advantages of mass production and still give him a product that suits his needs.

"Buyers want some individuality. But, by the same token, they don't want individuality in every single component of their cars because that runs up the cost."

Mallen termed the switch to metrics in the automotive industry "a long-term thing. We're not going to achieve these benefits over the next couple of years and people shouldn't expect that the change will be sudden, or even rapid.

"It's going to take a generation," he estimated.

Ford Motor Company has had metric components in its automobiles since the early 1970s, he said.

General Motors' 1976 Chevette was the first domestically produced automobile that is all metric in measurement.

Mallen said Ford is now about 10 per cent metric in its domestic automobile production, while its international operation is near the 30 per cent mark.

"Henry Ford has already announced that we'll be close to 50 per cent metric, domestically, by 1985," added Mallen.

Like it or not, here are some other

areas which are going or which will be going metric over the next few years:

- Temperatures will be figured in Celsius rather than Fahrenheit, and precipitation will be given in centimeters and millimeters. Distance, height and other elemental information will be in metrics (according to the Weather Service) within the next few months.
- A new federal law requires that liquor and wine be bottled in metric sizes no later than the end of 1979.
- The leadership of Sears Roebuck and Company claims that by the mid-1980s, all the firm's merchandise will be manufactured and sold in metric measures. Montgomery Ward plans a similar conversion.
- Garment dimensions won't change, but sizing systems will probably become uniform for men's, boys', women's and girl's clothing.
- Appliances will be measured in centimeters and refrigerators, stoves and freezers will have temperatures given in Celsius.
- People will be weighed in kilograms, height will be measured in centimeters and body temperature will be measured in Celsius.
- Mail rates will be measured in grams, rather than in ounces.
- Recipes, measures and utensils used in cooking will be retained. New metric-marked utensils will be available for metric recipes.
- Sports fans, take heart. It'll still be best to win and 10 yards to go in football, the Indianapolis 500 will remain the same and baseball will remain a game of inches.
- Some things, you know, are sacred.

METRIC/U.S. CUSTOMARY UNIT EQUIVALENTS

Multiply:	by:	to get:	Multiply:	by:	to get:
LINEAR					
inches	X 25.40	= millimetres (mm)	X 0.02537	= inches	
feet	X 0.3048	= metres (m)	X 3.281	= feet	
yards	X 0.9144	= metres (m)	X 1.0936	= yards	
miles	X 1.6093	= kilometres (km)	X 0.6214	= miles	
inches	X 2.540	= centimetres (cm)	X 0.3937	= inches	
micrometres	X 0.0254	= micrometres (µm)	X 39.37	= micrometres	
AREA					
inches ²	X 645.16	= millimetres ² (mm ²)	X 0.00155	= inches ²	
inches ²	X 6.452	= centimetres ² (cm ²)	X 0.155	= inches ²	
feet ²	X 0.0929	= metres ² (m ²)	X 10.764	= feet ²	
yards ²	X 0.8361	= metres ² (m ²)	X 1.196	= yards ²	
acres	X 0.4047	= hectares (10 ⁴ -m ²)			
miles ²	X 2.590	= kilometres ² (km ²)	X 0.3861	= miles ²	
VOLUME					
inches ³	X 16387	= millimetres ³ (mm ³)	X 0.000061	= inches ³	
inches ³	X 16.387	= centimetres ³ (cm ³)	X 0.06102	= inches ³	
inches ³	X 0.01639	= litres (L)	X 61.024	= inches ³	
quarts	X 0.94635	= litres (L)	X 1.0567	= quarts	
gallons	X 3.7854	= litres (L)	X 0.2642	= gallons	
gallons	X 26.317	= litres (L)	X 0.3531	= gallons	
feet ³	X 0.02832	= metres ³ (m ³)	X 35.315	= feet ³	
field oz	X 29.57	= millilitres (mL)	X 0.03381	= fluid oz	
yards ³	X 0.7646	= metres ³ (m ³)	X 1.3580	= yards ³	
teaspoons	X 4.929	= millilitres (mL)	X 0.2029	= teaspoons	
cups	X 0.2366	= litres (L)	X 4.227	= cups	
MASS					
ounces (av)	X 28.35	= grams (g)	X 0.03527	= ounces (av)	
ounces (av)	X 0.4536	= kilograms (kg)	X 2.2046	= ounces (av)	
tons (2000 lb)	X 907.18	= kilograms (kg)	X 0.001102	= tons (2000 lb)	
tons (2000 lb)	X 0.90718	= metric tons (t)	X 1.1023	= tons (2000 lb)	
FORCE					
ounces — f	X 0.278	= newtons (N)	X 3.597	= ounces — f	
pounds — f	X 4.448	= newtons (N)	X 0.2248	= pounds — f	
kilograms — f	X 9.807	= newtons (N)	X 0.10197	= kilograms — f	
TEMPERATURE					
°F	X 0.556	= (°F - 32)			
°C	X 1.8	= (°C)			

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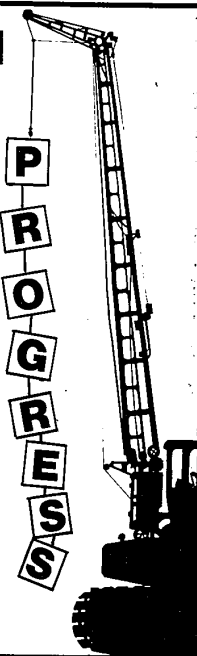
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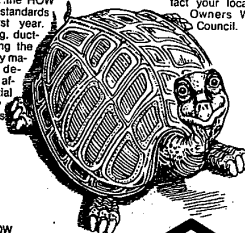
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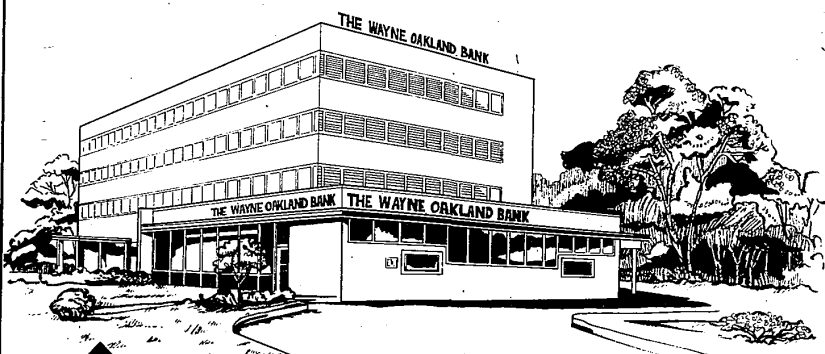


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