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RIPA Survey of U.S. and Canadian Industrial Container Reconditioning Industries - 2009

This report on industrial container reconditioning in the U.S. and Canada presents summary data on the recent annual production of reconditioned industrial containers such as drums and "intermediate bulk containers" (IBCs). It also profiles the container reconditioning industry in terms of industry practices, processes used, equipment used, employee training, markets served, customer service and regulatory compliance. The association last conducted a similar survey in 2005.

The Reusable Industrial Packaging Association (RIPA) is a U.S.-based trade association comprised of businesses that recondition and/or manufacture industrial containers such as steel drums, plastic drums and IBCs. RIPA also includes among its members businesses that provide supplies and/or services to container reconditioners and manufacturers.

RIPA conducted a survey of its members near the end of 2009. Taken together, the 39 U.S. surveys returned and the 3 Canadian surveys returned constitute a significant sampling of the U.S. and Canadian reconditioning industrial packaging industries. The data were aggregated and an average through-put for the respondents was calculated. The average was then extrapolated to the estimated totals of U.S. and Canadian businesses largely or exclusively in commercial reconditioning. The results are estimates for total commercial reconditioning. An unknown amount of "captive", non-commercial reconditioning is presumed to take place.

In addition, data on the kinds of materials shipped in industrial containers, as well as information on how reconditioning facilities operate was collected. For instance, respondents were asked if they operate a drum furnace or a caustic wash line. RIPA's survey collected much of this information, in addition to information on markets served by reconditioners and regulatory compliance with health, safety and environmental rules.

A significant percentage of industrial containers are used and reused for the shipment of hazardous materials (referred to as "dangerous goods" outside the U.S.). As such, these containers must be qualified through testing to perform safely in shipping hazardous products.

Different hazardous materials require containers with different performance capabilities. Containers can be rated to different levels of performance through the qualifying tests. Markings on the container will indicate the levels of performance to which the container has been certified.

In U.S. hazmat regulations, UN recommendations and international transportation codes, industrial "containers" are more accurately referred to as industrial "packagings". Further, a "packaging" is a container ***unfilled***; a "package" is a container ***filled***. Finally, "recycling" is the conversion of a used container into raw material (e.g., scrap steel or plastic) for production of a wholly different product: "reconditioning" is the preparation of a used container for reuse ***as*** a container.

Background

Surveys sent to: 62 U.S. Member Reconditioning Companies
5 Canadian Member Reconditioning Companies

Surveys received: 39 U.S. Member Reconditioning Companies
3 Canadian Member Reconditioning Companies

Total Estimated US Reconditioners:	90
Total Estimated Canadian Reconditioners:	11

Survey Data Reported

All data reported are for the 12-month period ending September 30, 2009.

Number of respondents identifying themselves as (one or more category):

Reconditioners:	42
Manufacturers:	10
Brokers:	21
Suppliers:	7

Estimated Total ***Steel Drums*** Reconditioned (U.S.) 2009

Tight Head	9,048,000	*(Reported scrap rate 22%)*
Open Head	16,638,000	*(Reported scrap rate 7%)*
	25,686,000	
	+ 4,205,000	*plus remanufactured*
	29,891,000	*(32,300,000 in 2005)*

Estimated Total ***Plastic Drums*** Reconditioned (U.S.) 2009

Tight Head	6,314,000	*(Reported scrap rate 28%)*
Open Head	544,000	*(Reported scrap rate 28%)*
	6,858,000	*(6,000,000 in 2005)*

Estimated Composite 275- and 330-gal. ***IBCs*** Reprocessed (U.S.) 2009

1,500,000	*(Reported scrap rate 17%)*
	(940,000 in 2005)

Note: Somewhat lower numbers in steel drum reconditioning is likely attributable to an overall economic downturn, high demand for steel scrap, and growing market shares for other packagings.

Canadian	Steel Tight Head	1,332,000	*(Reported scrap rate 5%)*
	Steel Open Head	377,000	*(Reported scrap rate 20%)*
	Plastic Tight Head	1,298,700	*(Reported scrap rate 18%)*
	Plastic Open Head	< 1,000	
	IBCs 275 gal	33,000	*(Reported scrap rate 31%)*
	IBCs 330 gal	1,000	*(Reported scrap rate 0%)*

Percentage Packaging Sold for Hazmat

Steel drums:	60%
Plastic drums:	65%
Fiber drums:	11%
Composite IBCs:	55%

Filling Industries *(AVERAGE % reported – "packagings sold to ship…")*

For steel drums

Oil:	31%
Solvents:	29%
Hazwaste:	21%
Paints:	16%
Other:	14%
Adhesives:	12%
Fuels:	11%
Juice:	10%
Acid/base:	10%.
Food:	9%
Detergents:	7%
Pharmaceuticals:	4%
Pesticides:	3%

For plastic drums

Detergents:	52%
Acid/base:	48%
Solvents:	27%
Other:	23%
Oil:	16%
Pharmaceutical:	15%
Hazwaste:	14%
Paints:	13%
Adhesives:	11%
Pesticides:	3%

For IBCs

Acid/base:	30%
Detergents:	29%
Other:	28%
Adhesives:	26%
Pesticide:	25%
Paints:	21%
Oil:	17%
Pharmaceuticals:	15%
Solvents:	12%
Hazwaste:	6%
Fuels:	6%

For fiber drums

Food	60%
Other	60%
Pharmaceuticals	45%,
Adhesives	25%,
Waste	20%,
Detergents	15%

Container storage

Concrete/blacktop	45%
Bare ground	53%
Trailers	56%
In structure	35%

*It is important to note that some respondents keep **all** their drums or **all** their IBCs on bare ground or on trailers.*

Reconditioning Processes (of 42 Respondents)

Caustic wash	39
Acid wash	10
Furnace	13
Chaining	13
Shot blasting	20
Flame treating	4

Transportation (average of responses)

Tractors	10	3	*Canadian*
Trailers	401	18	
Drivers	9	4	
Hazmat endorsement	4	4	
Lease tractors?	14	1	
Percentage leased?	75%	50%	

Wastewater treatment

Facilities with treatment	22	3	*Canadian*
Average gal per day	14,370	4,216	
Sewer discharge	23	3	
Discharge water tested	18	3	

Pollutants tested:

heavy metals, COD, BOD, TSS, pH, TTO, suspended solids, oil/grease, volatiles, organics.

Operate Paint Booths?	41	*95% of respondents*
HAP-free	8	*20%*
Low HAP	19	*49%*
Solvent-based	12	*42%*

Operate Furnaces (U.S.)?	22	*(Total # furnaces estimated in U.S. 31)*
Test ash	12	
Frequency	*widely variable*	
Monitor stack emissions?	7 yes	

Have Air Emissions Permits (U.S.)? 22 *56%of respondents*

How many? 1 ea

Incoming Containers (U.S.)

Use RIPA rejection stickers? 18 yes

Use RIPA Hazmat Employee Training Module?

New program (2009) 16 yes

Customer Audits (U.S. & Canada)

36 responses average audits 9

U.S. Sales into:

Canada	5
Mexico	4
Europe	1
Far East	1