

This firm cuts cube to a minimum because...

Packaging air is waste of money

Packaging technique is the critical factor in an export operation that turns out 18 crates containing 24 completely knocked-down (CKD) cars every eight-hour shift.

Location is a 50,000-sq ft dockside plant in Hamilton, Ont., where Great Lakes Overseas Packing Division of Summerhayes Industrial & Wood Products Ltd. is engaged in a constant fight to reduce cubic content—"cube" to anyone in or around the shipping business. And the reason is elementary—the more space crates take up, the more it costs to ship them.

Great Lakes Overseas Packing Div. currently works only for Studebaker of Canada Ltd., crating and shipping

Model Y sedans to Israel, South Africa and Australia.

Studebaker in the U.S. has shipped automobiles and trucks in CKD condition to assembly plants abroad for more than 25 years. During this time, it has amassed a great deal of experience, developing high efficiency and economy through parts processing, packaging and shipping methods.

This experience is now being used to advantage in the Hamilton operation where the packaging plant manager is Don Bidelman, for 28 years with Studebaker in the U.S. He was in the export department for 15 years, last seven years as manager, and joined

Great Lakes Overseas Packing Division when that company started its Hamilton operation in April 1964. Bidelman designed all the packaging now being used there.

The economics of shipping cars in CKD condition are best shown by comparison with the cubic content of assembled units. Twenty-four completely assembled cars for South Africa would occupy between 7,000 and 8,000 ft. Total space occupied by 18 cases containing 24 CKD units is 2,596 cu ft. Total weight is 71,469 lb.

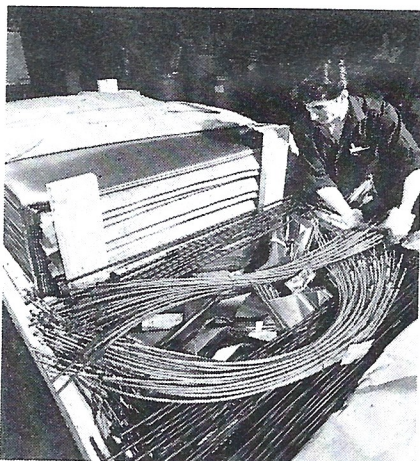
Parts are delivered to the dockside operation from Studebaker's Hamilton plant and from the latter company's

As much space as possible is being used here by packing between frames, such items as springs, tubing, hubs and drums, bags of components.



suppliers, working to a schedule formulated by the packing company and Studebaker.

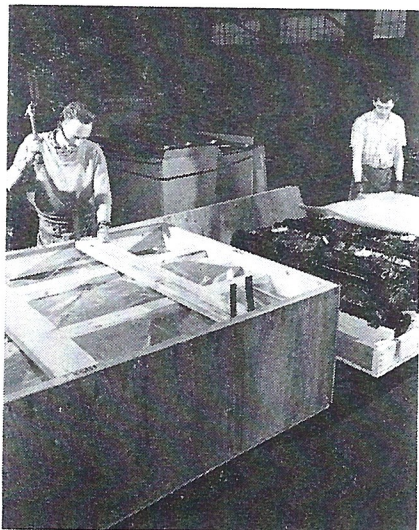
Naturally, a packing operation involving about 5,000 different automobile parts requires much organization behind the scenes. Studebaker supplies a complete set of IBM cards for all parts and all countries. Every part has a number. A particular part may be included in a shipment to Israel, but not to Australia.



Panels share crate with cables, other parts.



Nuts, bolts are weighed, not counted.



Parts are removed, fitted between motors.

A separate card system records all parts received and ties in with the firm's method of stocking in bins and bays. Once a part is identified by number, it's easy to locate by using the card system.

All crates used by the company have plywood facing and tops, with bottom construction of $\frac{7}{8}$ x 6 in. lumber. Most crates have 2 x 6 in. railing, and all are nailed, with corner straps. When gross weight is more than 5,000 lb, crates are banded using $1\frac{1}{4}$ in. plain and perforated and $\frac{3}{8}$ in. banding supplied by Acme Steel Co. of Canada Ltd.

Crates are lined with VCI rust-inhibiting paper and, before being nailed down, have a 3-mil polyethylene shroud placed over the parts. Both paper and film are stocked in four sizes and supplied by Smith Packaging Ltd., Toronto.

The packing company tries to use every available cubic inch of space in a crate because, as Bidelman says: "Packaging air is expensive." One example of this type of thinking can be shown in the packing of motors.

Motors are received complete at the plant but, to conserve space, the following are removed: bell housing, clutch plates, distributors, coil, water inlet, oil filter, starter and manifolds. Motors are packed in a special crate—eight V-8's or 12 6-cylinder motors. Parts are then placed between the motors. A T-bar bracing arrangement keeps all components firmly in place inside the crate.

For framing components, the frame is first laid down inside the crate and as much space as possible used up by placing brake cables, hubs and drums, axles, etc. between frame members. Axles are tied down at the base of

the crate for maximum protection.

For windshields, the packing company has devised a special Masonite pack, with 2 x 2 in. framing, which holds 12 windshields.

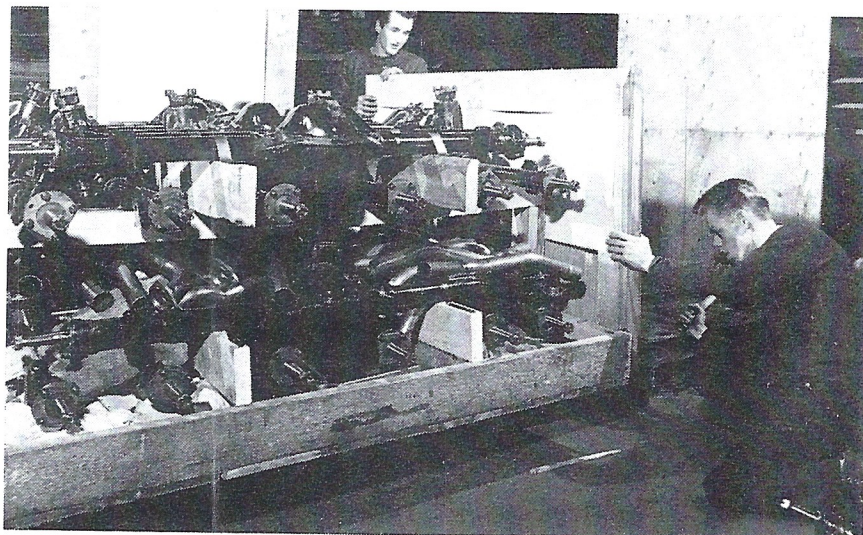
For critical components—clocks, speedometers, voltage regulators, etc.—added protection is provided by placing them in corrugated boxes. The company stocks 40 different sizes of corrugated boxes which are supplied by Bonar & Bemis Ltd., Burlington, Ont.

All chrome parts are wrapped, using kraft for the inner, and cellulose paper for the outer. Small parts are packed in polyethylene bags and cotton bags supplied by Smith Packaging. Such small items as nuts and bolts are not counted but weighed, using a Toledo over-and-under scale.

When a shipment is scheduled, special tickets are made out in the office, one for each part number. These provide information to packers as to part number and amount of parts to be shipped. A section of each ticket is attached to the appropriate part and travels to the country of destination for identification when the crate is opened. After packaging is completed, all ticket information is returned to the office, for use in the preparation of shipping records.

For every change in model or automobile design, Bidelman must re-engineer the company's packing, and search for more efficient methods to cut down cubic content.

Illustrating the efficiency of current packaging methods, Bidelman cites a figure of less than 1% in damages, shortages, etc. On Australian shipments last year, total replacement (including shortages) occupied only 200 cu ft. And total delivery during the period amounted to 2,500 vehicles. □



Here's another example of how various car parts are packed to conserve space in crates.