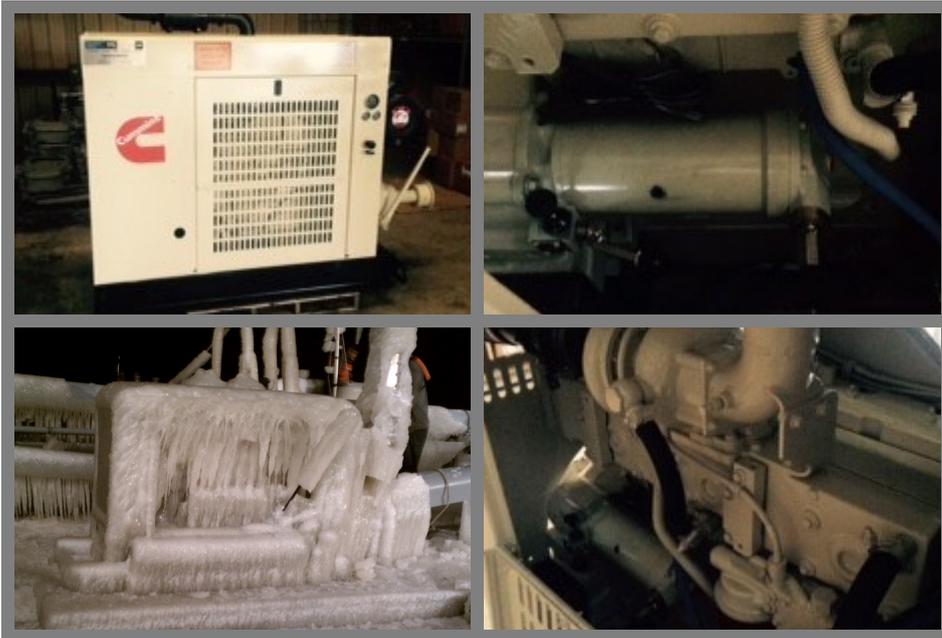




When Power is Critical



AMERICAN COMMERCIAL BARGE LINE



LOCATION

Jeffersonville, Indiana, USA

BUSINESS SECTOR

Cargo Transportation (Marine)

SIZE

4,230 Barges

EQUIPMENT

Detroit Diesel Series 71
Cummins 8.3L Mechanical Engine

CHALLENGES FACED

1. American Commercial Barge Line (ACBL) were concerned about the risks of pollution from their previous starters. Pollution can result in heavy fines and the closure of the waterway for cleaning.
2. ACBL operate right across the U.S. inland waterways system. This means operating in temperatures ranging from -23°F to 100°F (-30°C to +40°C). Their existing starters struggled in the colder conditions.

SOLUTIONS DELIVERED

1. IPU's spring starters require no fluids, removing the risk of pollution. IPU's hydraulic starting systems are also delivered as complete systems to avoid the risk of leaks.
2. IPU's hydraulic and spring starting systems are ultra reliable and are unaffected by temperature extremes.

“ I couldn't ask for a better group to work with. IPU has delivered everything we've required them to do. On top of that their performance has been excellent. ”

American Commercial Barge Line



ACBL face temperatures extremes from -23°F to 100°F (-30°C to +40°C).



THE CHALLENGES

BACKGROUND

ACBL use diesel engines on their barges to power vertical lift pumps. The reliability of this equipment is key as it is used to load and unload cargo. If a workboat's loading equipment fails at the dockside they receive an immediate \$10,000 fine.

If that failure is prolonged it can also result in the customer having to halt production if they can't get their stock from the barge.

ACBL were faced with two major concerns:

TEMPERATURE EXTREMES

ACBL transport cargo across the entire U.S. inland waterway system which runs from Texas to Minnesota. This means they're working in temperatures between -23°F to 100°F (-30°C to +40°C). Their existing starting systems would often struggle for reliability in colder temperatures.

RISK OF POLLUTION

ACBL were also concerned about the risk of pollution from their existing hydraulic systems. They were worried that hydraulic fluid could leak from the hoses and fittings.

The US Environmental Protection Agency (EPA) impose heavy fines if any pollution enters the inland waterway. Barge operators may be assessed a Class I penalty of up to US\$10,000 per violation (up to a maximum of US\$25,000), or a Class II penalty of up to US\$10,000 per day of violations (up to a maximum of US\$125,000).

\$10,000

immediate fine for a workboat failure

\$125,000

maximum EPA fine for pollution on the inland waterways system



THE SOLUTIONS

IPU SPRING STARTERS

IPU's spring starter motors are a perfect solution to ACBL's pollution concerns on engines up to 730 cubic inches (12 litres). They don't require any hydraulic fluid so there's no risk of pollution. They also offer:

- **Guaranteed starting** - Spring starters are unaffected by shutdowns, damp, humidity, cold or heat. They even work after full immersion in water.
- **Space and weight saving** - Spring starters are incredibly compact. Starting at only 12kg they are less than half the weight of electric starters.
- **Ease of use** - Spring starters are a direct 'bolt-on' alternative to electric starters. They can even be fitted while the workboat is out on the water.

IPU HYDRAULIC STARTING

IPU's hydraulic starting systems provided ACBL with guaranteed starting for diesel engines up to 4,880 cubic inches (80 litres). They are unaffected by temperature extremes as well as offering:

- **Unbeatable reliability** - Hydraulic energy can be stored indefinitely. After discharge, it can be quickly and easily re-charged via hand pump or engine recharge.
- **Quick delivery and easy installation** - IPU can deliver complete systems so you can 'fit-and-forget'. No specific technical expertise is required.
- **Low maintenance** - Hydraulic starting systems are enclosed. Internal components are immersed in oil, protecting them from adverse conditions.

23°F (-30°C)

is the lowest temperature on the inland waterways system

www.ipu.co.uk/starting

ABOUT IPU GROUP

IPU's Engine Starting division provide non-electric starters and custom starting solutions for most makes and sizes of diesel and gas engine. The range of products include:

- Air starting systems and motors
- Hydraulic starting systems and motors
- Spring starting systems and motors
- Nitrogen starting systems

During IPU's 40 year history in engine starting the team have supported industry sectors including mining, marine, transport, military and oil and gas.

For more information please visit the website: www.ipu.co.uk/starting.

ABOUT AMERICAN COMMERCIAL BARGE LINE

ACBL have a fleet of approximately 4,800 barges which are powered by 200 boats. ACBL transports an array of dry and liquid cargos, including chemicals, petroleum, ethanol, grain, coal, steel, fertilizers, salt, containers, and project cargo throughout the U.S. inland waterways system.

For more information please visit the website: www.bargeacbl.com.

4,800 barges

**in the American Commercial
Barge Line fleet**

www.ipu.co.uk/starting

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