



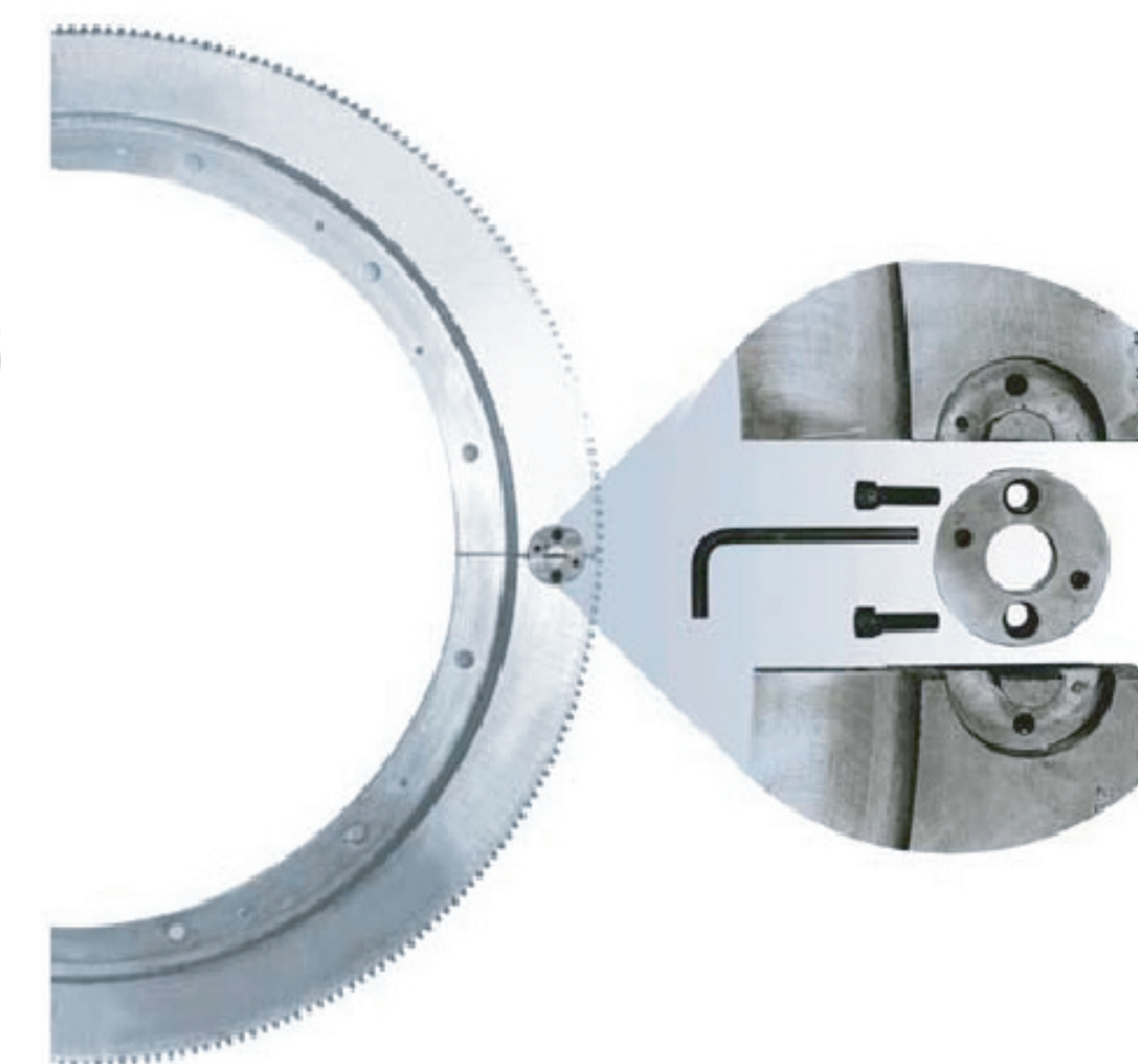
PENN MACHINE COMPANY LLC

THE LEADER IN LOCOMOTIVE GEAR SOLUTIONS

Segmented Locomotive Flywheel/Starter Gear

Same as OEM 40121149. Replaces 40051536 & 40114007 – EMD 645 & 710 Engines

With the growth of automated engine starter systems, starter gears are used more than ever. Penn Machine has designed a 3-piece starter gear in cooperation with a Class I railroad. The benefits of this product have enabled railroads and repair shops alike to improve their efficiency and profitability.



Key features and benefits are:

- Heat Treat Alloy Steel for Longer Life
- Reduced Tooth Breakage
- 90% Reduction in Changeout Time & Cost

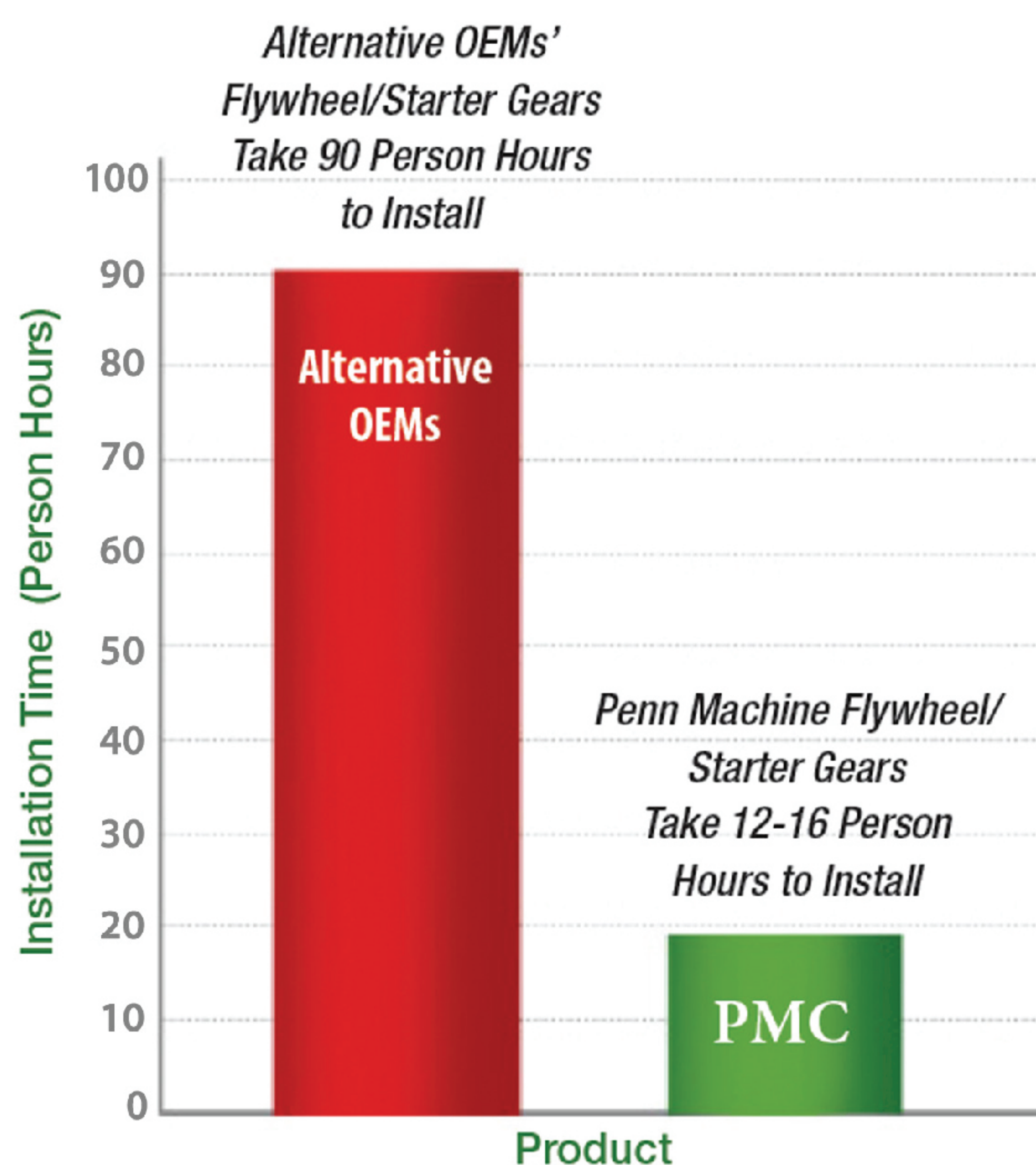
Part Numbers

00493643/40121149 (3 piece)

00708066/40122615 (3 piece chamfered)

Installation Instructions

1. Remove flywheel bolts from old starter gear. Torch cut gear to remove. Protect other critical components during cutting.
2. Remove old gear halves, clean flywheel, check clean & re-tap mounting holes.
3. Disassemble PMC 3-piece split starter gear. Remove Allen screws & locking plate. Mount loose segments to the flywheel & snug down bolts.
4. Reassemble the split locking plates. Loctite Allen screws & torque to 100-130 inch pounds.
5. Tighten flywheel bolts per OEM specifications.



Penn Machine Flywheel/Starter Gears cut installation time by more than 80%

A Leader in Wheels & Maintenance Equipment for Transit, Rail & Mining/Industrial Applications

In 1920, Penn Machine Company (PMC) began as a coal company and pioneered the manufacture of quality replacement parts for coal mining equipment. Over the years, the company has grown to become a major supplier of heavy-duty OEM and aftermarket components for transit, railroad, mining, steel, construction, and general industrial applications. Our business is domestic and international in scope. Our capabilities and experience combine to provide a wide range of quality manufactured products and services. Penn Machine is comprised of three market-focused stand-alone business units: Transit, Locomotive, and Industrial/Mining. The company has operations in Johnstown and Blairsville, PA, and is part of The Marmon Group, a global organization of manufacturers owned by Berkshire Hathaway Corp.



American Gear Manufacturers Association

AAR M1003



Quality System Registrar



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