



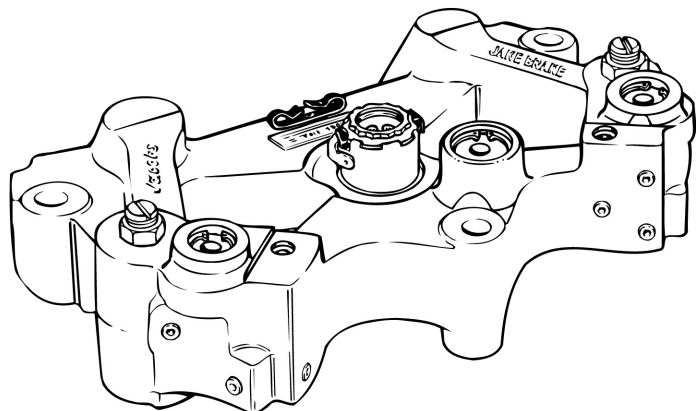
Jacobs Vehicle Systems™

JAKE BRAKE® MODELS 310A/312A

For Caterpillar® 3176B,
C10, C12 Engines

Features and Benefits

- Easy Installation for Reduced Cost
- Integrated Controls Allow the Jake Brake Engine Brake to be Controlled by the Engine...No Add-on Wiring
- Performance Optimized for Highest Horsepower Ever Available on Caterpillar 10 and 12 Liter Engines
- Lightweight Design Optimizes Retarding and Payload
- Backed by the Caterpillar Worldwide Network of Distributors and Dealers
- Available for All Ratings of the Caterpillar 3176B, C10 and C12 Engines
- Up to 16% Improvement in Available Retarding Horsepower Over Previous Brake Model
- Available Directly from Caterpillar
- Three-year/300,000-mile Standard Warranty



Jacobs Vehicle Systems™

ENGINEERED
FOR THE

ROAD AHEAD

Technical Specifications

Height	2.5"	64 mm
Length	11.0"	279 mm
Width	7.5"	191 mm
Kit Added Weight	75 lbs.	34 kg.
Housings Per Engine	3	

Application Information

For the most accurate application information, refer to the Caterpillar Application Guide (Jacobs P/N 25739 or CAT REHS 0245), available from your Caterpillar Distributor, Extranet or www.jakebrake.com.

Retarding Performance

RPM	310 A			312 A
	325/350	335	370	C-12
1100	87-91	83	83	89-105
1300	128-130	111	109	117-143
1500	161-167	158	150	163-195
1700	219-225	204	194	213-245
1900	259-268	248	231	265-305
2100	303-320	284	263	299-350

Important Note: The performance data shown is measured in accordance with SAE J1621 power measurement standard, up to engine manufacturer's rated engine speed of 2100 RPM.

Jacobs Engine Brake® is designed and tested in cooperation with Caterpillar to provide the highest performance available while maintaining or improving engine brake system reliability and durability.

How The Jake Brake® Models 310A/312A Work:

Energizing the engine brake effectively converts a power-producing diesel engine into a power-absorbing air compressor. This is accomplished through motion transfer using a master/slave piston arrangement which opens cylinder exhaust valves near the top of the normal compression stroke, releasing the compressed cylinder charge to exhaust.

The blow down of compressed air to atmospheric pressure prevents the return of energy to the engine piston on the expansion stroke, the effect being a net energy loss since the work done in compressing the cylinder charge is not returned during the expansion process.

