



Jacobs Engine Brake | Model 490A

For Cummins Engines - ISL98, ISL03, ISL07, ISC07, ISL 2010, ISC 2010, ISL 2013, L9 2017, L9 2021

Jacobs Engine Brake® has provided exceptional engine brake performance for these Cummins engines for over 30 years. The 490A engine brake provides drivers with enhanced vehicle control and added safety and is fully integrated with the engine electronic controls and vehicle ABS.

FEATURES & BENEFITS

- Enhances vehicle control & added safety with full compression-release Jake Brake® engine brake technology
- Fully integrates with Cummins engine controls & backed by the Cummins worldwide network of distributors and dealers
- Three stage engine brake operation, low/med/high
- Certified and approved by the engine manufacturer
- Fully integrated with engine electronic controls and with vehicle ABS for greater driver control
- Factory installed or available in an aftermarket kit
- Compact housing size and low weight
- Two-year/250,000 mile standard warranty



Jacobs Engine Brake® for Cummins Engines

How The Jake Brake® Works

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.

Retarding Performance - HP

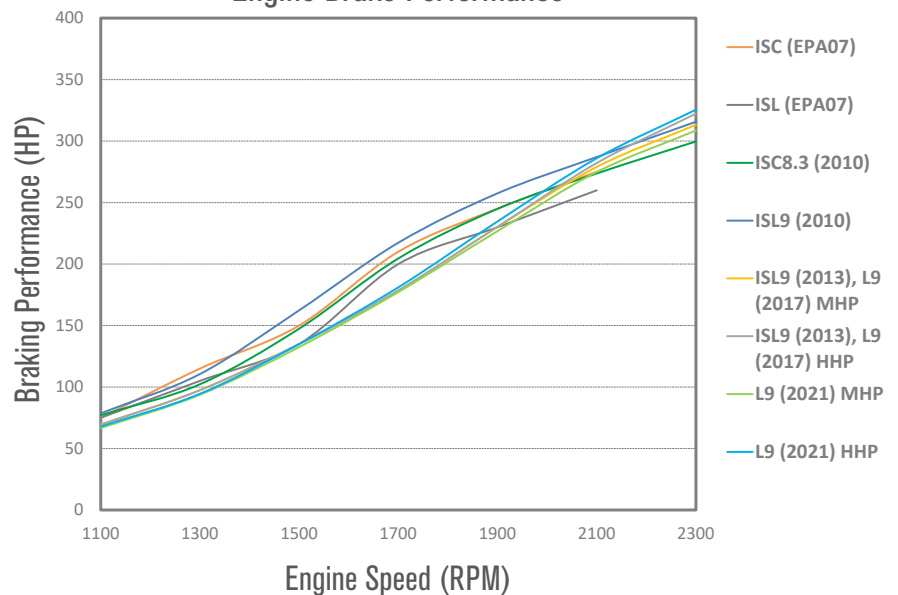
RPM	ISC (EPA '07)	ISL (EPA '07)	ISC8.3 (EPA '10)	ISL9 (2010)	ISL9 (2013) L9 (2017)		L9 (2020)	
					MHP*	HHP*	MHP*	HHP*
1100	75	75	77	79	70	70	67	68
1300	115	105	102	111	98	98	94	94
1500	150	135	147	162	135	135	133	135
1700	210	200	205	217	179	179	177	181
1900	245	230	245	258	230	230	227	235
2100	275	260	274	287	279	282	275	286

Technical Specifications

Height	4"	102 mm
Length	14"	356 mm
Width	6"	152 mm
Kit Added Weight**	49 lbs	22 kg
Housings Per Engine	2	

For the latest service information, please see Jacobs installation manual (26302) as well as Cummins Technical Service Bulletin (TSB210223).

Engine Brake Performance



*MHP = 260-360hp Productivity Engine, HHP = 370-380hp Performance Engine **Weight without spacer (4.4 kgs)