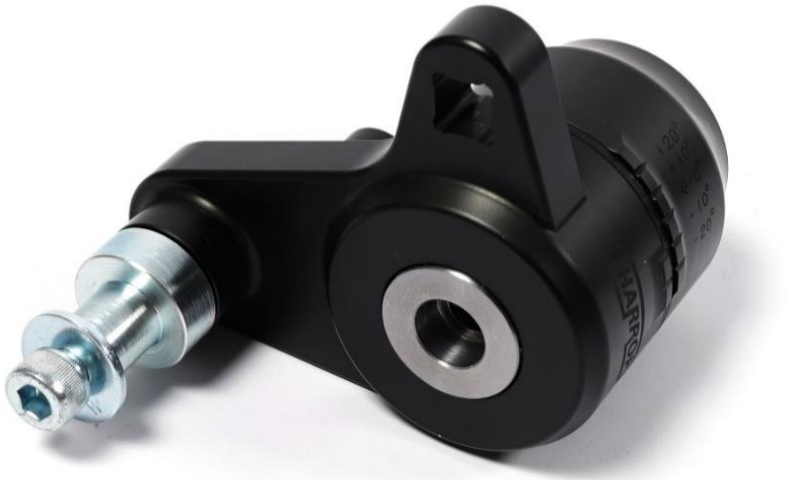
Tech Guide

12PK LSA-H2650i FEAD & 10PK LS FDFI FEAD

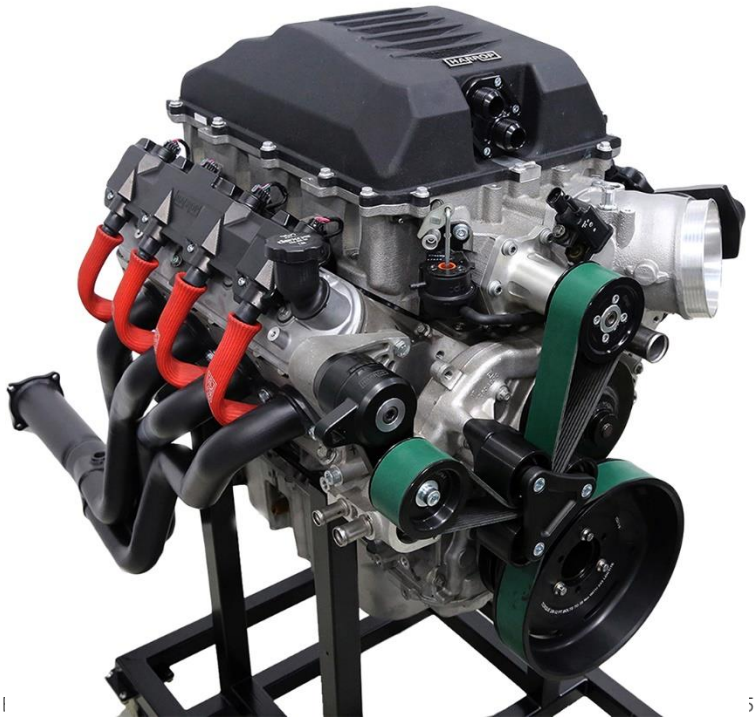
Harrop LSA Style FEAD Tensioner (*Part # 99-ATEN15259*)

- The Harrop tensioner is manufactured from billet 6061 aluminium making it stronger than the cast OEM.
- The tensioner has 10 degrees more radial travel than the OEM providing more flexibility for given belt lengths.
- The tensioner is fitted with a heavier spring providing up to 40% greater load at full travel when compared to the OEM tensioner.
- The above features make the tensioner well suited for the wider 10PK and 12PK belt drives minimising slip however it can still be used with an OEM 8PK pulley.
- When fitting the idler pulley to the tensioner, ensure that circlip on the pulley faces the engine.



12PK LSA FEAD for Harrop H2650i (*Idler Mount Part # 99-AMNT15279*)

- The Harrop 12PK drive system has been designed to fit the standard ATI balancer available for the LSA engine.
- There are 2 crank pulleys available and when combined with the supercharger drive pulley will provide progressive increase in supercharger RPM, refer to 12PK H2650i table.
- The new 3 idler mount provides increased belt wrap on the supercharger pulley again minimising slip.
- With the limited belts available this system must use the Harrop tensioner and in combination with different tensioner pulley diameters to provide enough tensioner travel/tension, refer to table1 for required combinations.



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12PK LSA-H2650i FEAD & 10PK LS FDFI FEAD

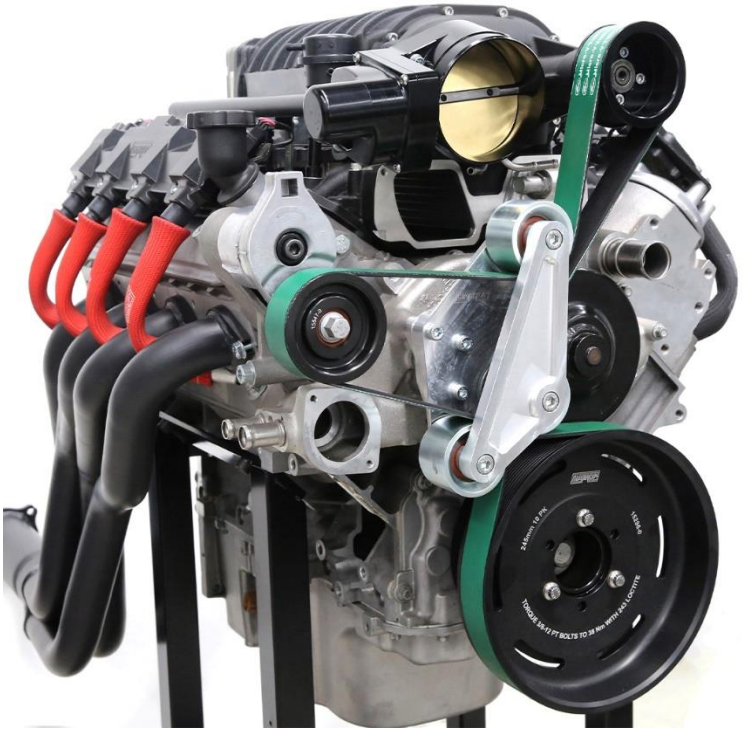
12PK H2650i Table:

Note that the pulley combinations and belt lengths are based on standard LSA block and heads, non-standard deck heights may effect these configurations. Supercharger RPM is based on an engine speed of 6600.

Crank Pulley (Part #)	S/C Pulley (Part #)	Tensioner Pulley (Part #)	Belt Length	Drive Ratio	S/C Speed
Ø205 (99-PLY15270)	Ø90 (99-PLY15232)	Ø70 (99-APLY15316)	1727	2.28	15033
Ø205 (99-PLY15270)	Ø85 (99-PLY15231)	Ø70 (99-APLY15316)	1727	2.41	15918
Ø205 (99-PLY15270)	Ø80 (99-PLY15230)	Ø75 (99-APLY15315)	1727	2.56	16913
Ø205 (99-PLY15270)	Ø75 (99-PLY15229)	Ø80 (99-APLY15266)	1727	2.73	18040
Ø205 (99-PLY15270)	Ø70 (99-PLY15228)	Ø80 (99-APLY15266)	1727	2.93	19329
Ø254 (99-PLY15271)	Ø85 (99-PLY15231)	Ø70 (99-APLY15316)	1831	2.99	19722
Ø254 (99-PLY15271)	Ø80 (99-PLY15230)	Ø75 (99-APLY15315)	1831	3.18	20955
Ø254 (99-PLY15271)	Ø75 (99-PLY15229)	Ø75 (99-APLY15315)	1831	3.39	22352
Ø254 (99-PLY15271)	Ø70 (99-PLY15228)	Ø80 (99-APLY15266)	1831	3.63	23949

10PK LSA FEAD for Harrop FDFI LS variants (*Idler Mount Part # 99-AMNT15039*)

- The 10PK FEAD system is a generic upgrade from the Harrop 8PK that has been on the market for some years. There are only 2 main differences:
  - The idler mount is designed to suit the wider 10PK belt.
  - The lower pulley has moved upward to enable the larger balancer pulley to be installed.
- The Harrop 10PK drive system has been designed to fit the standard ATI balancer available for the LSA engine.
- Due to the availability of belts the larger balancer pulley is 9mm smaller (245mm *23% overdrive*) than the one offered on the H2650i.
- There is only one tensioner pulley diameter used in this configuration, refer to the following tables for pulley part numbers.



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12PK LSA-H2650i FEAD & 10PK LS FDFI FEAD

The following 3 tables are current variants available, please ensure you refer to the correct table for pulley part numbers:

FDFI 2650 Variants

Note that the pulley combinations and belt lengths are based on standard LSA block and heads, non-standard deck heights may effect these configurations. Supercharger RPM is based on an engine speed of 6600.

10PK LSA drive FDFI2650 standard manifold assembly

Crank Pulley (Part #)	S/C Pulley (Part #)	Tensioner Pulley (Part #)	Belt Length	Drive Ratio	S/C Speed
Ø205 (99-PLY15295)	Ø85 (99-PLY15095)	Ø80 (99-APLY15547)	1893	2.41	15918
Ø205 (99-PLY15295)	Ø80 (99-PLY15094)	Ø80 (99-APLY15547)	1880	2.56	16913
Ø205 (99-PLY15295)	Ø75 (99-PLY15093)	Ø80 (99-APLY15547)	1880	2.73	18040
Ø205 (99-PLY15295)	Ø70 (99-PLY15092)	Ø80 (99-APLY15547)	1860	2.93	19329
Ø205 (99-PLY15295)	Ø65 (99-PLY15091)	Ø80 (99-APLY15547)	1845	3.15	20815
Ø245 (99-PLY15296)	Ø85 (99-PLY15095)	Ø80 (99-APLY15547)	1980	2.88	19024
Ø245 (99-PLY15296)	Ø80 (99-PLY15094)	Ø80 (99-APLY15547)	1980	3.06	20213
Ø245 (99-PLY15296)	Ø75 (99-PLY15093)	Ø80 (99-APLY15547)	1962	3.27	21560
Ø245 (99-PLY15296)	Ø70 (99-PLY15092)	Ø80 (99-APLY15547)	1962	3.50	23100
Ø245 (99-PLY15296)	Ø65 (99-PLY15091)	Ø80 (99-APLY15547)	1943	3.77	24877

10PK LSA drive FDFI2650 with straight manifold spacer

Crank Pulley (Part #)	S/C Pulley (Part #)	Tensioner Pulley (Part #)	Belt Length	Drive Ratio	S/C Speed
Ø205 (99-PLY15295)	Ø85 (99-PLY15095)	Ø80 (99-APLY15547)	1930	2.41	15918
Ø205 (99-PLY15295)	Ø80 (99-PLY15094)	Ø80 (99-APLY15547)	1930	2.56	16913
Ø205 (99-PLY15295)	Ø75 (99-PLY15093)	Ø80 (99-APLY15547)	1920	2.73	18040
Ø205 (99-PLY15295)	Ø70 (99-PLY15092)	Ø80 (99-APLY15547)	1910	2.93	19329
Ø205 (99-PLY15295)	Ø65 (99-PLY15091)	Ø80 (99-APLY15547)	1893	3.15	20815
Ø245 (99-PLY15296)	Ø85 (99-PLY15095)	Ø80 (99-APLY15547)	2030	2.88	19024
Ø245 (99-PLY15296)	Ø80 (99-PLY15094)	Ø80 (99-APLY15547)	2030	3.06	20213
Ø245 (99-PLY15296)	Ø75 (99-PLY15093)	Ø80 (99-APLY15547)	2012	3.27	21560
Ø245 (99-PLY15296)	Ø70 (99-PLY15092)	Ø80 (99-APLY15547)	2012	3.50	23100
Ø245 (99-PLY15296)	Ø65 (99-PLY15091)	Ø80 (99-APLY15547)	1993	3.77	24877

10PK LSA drive FDFI2650 with forward offset manifold spacer

Crank Pulley (Part #)	S/C Pulley (Part #)	Tensioner Pulley (Part #)	Belt Length	Drive Ratio	S/C Speed
Ø205 (99-PLY15295)	Ø85 (99-PLY15692)	Ø80 (99-APLY15547)	1930	2.41	15918
Ø205 (99-PLY15295)	Ø80 (99-PLY15691)	Ø80 (99-APLY15547)	1930	2.56	16913
Ø205 (99-PLY15295)	Ø75 (99-PLY15690)	Ø80 (99-APLY15547)	1920	2.73	18040
Ø205 (99-PLY15295)	Ø70 (99-PLY15689)	Ø80 (99-APLY15547)	1910	2.93	19329
Ø205 (99-PLY15295)	Ø65 (99-PLY15688)	Ø80 (99-APLY15547)	1893	3.15	20815
Ø245 (99-PLY15296)	Ø85 (99-PLY15692)	Ø80 (99-APLY15547)	2030	2.88	19024
Ø245 (99-PLY15296)	Ø80 (99-PLY15691)	Ø80 (99-APLY15547)	2030	3.06	20213
Ø245 (99-PLY15296)	Ø75 (99-PLY15690)	Ø80 (99-APLY15547)	2012	3.27	21560
Ø245 (99-PLY15296)	Ø70 (99-PLY15689)	Ø80 (99-APLY15547)	2012	3.50	23100
Ø245 (99-PLY15296)	Ø65 (99-PLY15688)	Ø80 (99-APLY15547)	1993	3.77	24877

* Please note that whilst our Drive Systems are designed/engineered for high performance application, the durability of drive belts and the subsequent operation of this system under high/excessive loads and maximum engine rpm cannot be guaranteed. Harrop will not be responsible for drive belt failure nor consequential damage & loss associated with any high stress or racing application.