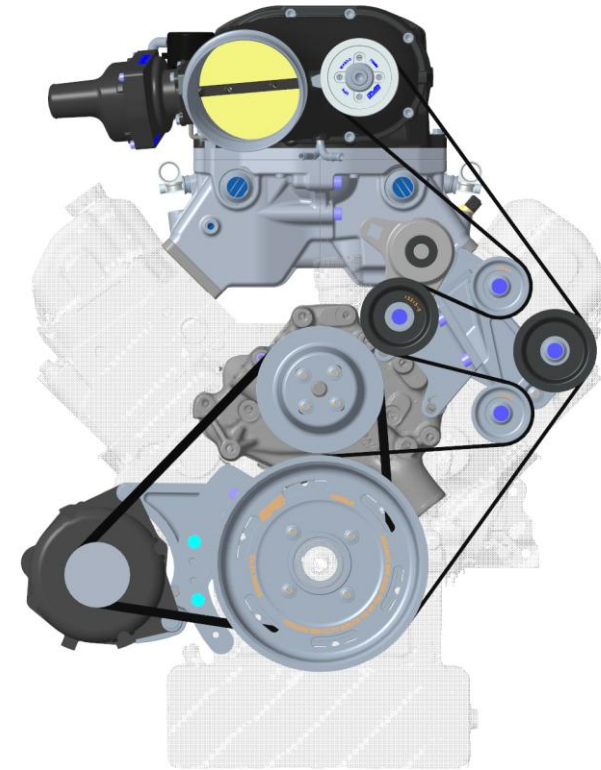
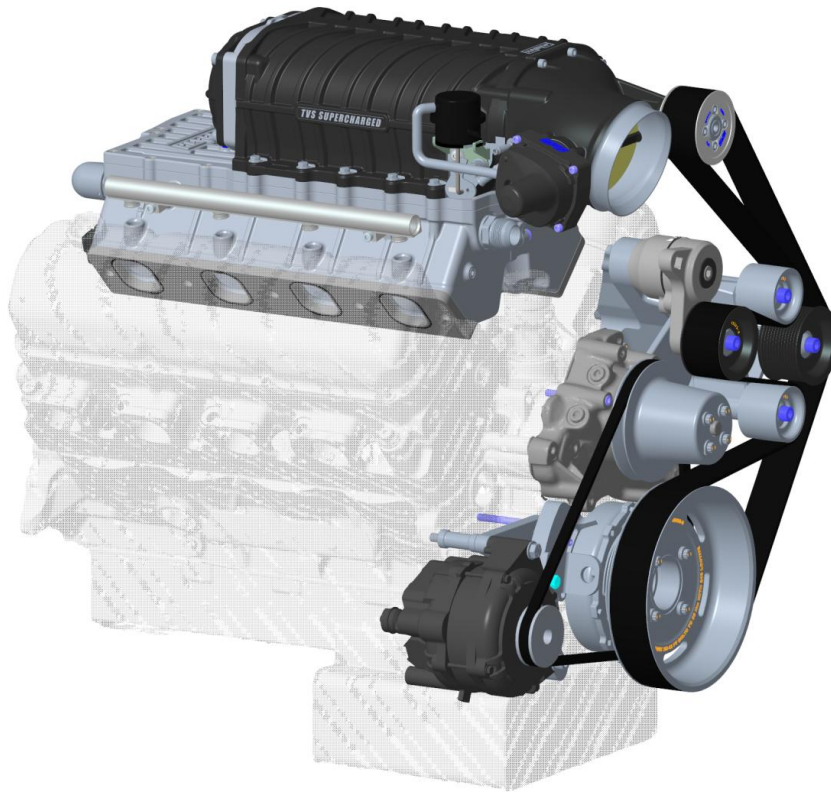


Tech Guide

Ford Clevor (9.2 / 9.5 deck) Supercharger



Harrop Engineering develops and manufactures premium supercharger kits in Melbourne, Australia. Through 70 years of automotive performance Engineering, Harrop Engineering have successfully manufactured and supplied Superchargers to Automotive OEM programmes including TRD, Lotus Cars and Ford Australia. Harrop Engineering is certified to meet ISO 9001 standards of quality. OEM Quality, performance and vehicle integration are the foundation of Harrop Supercharger kits.



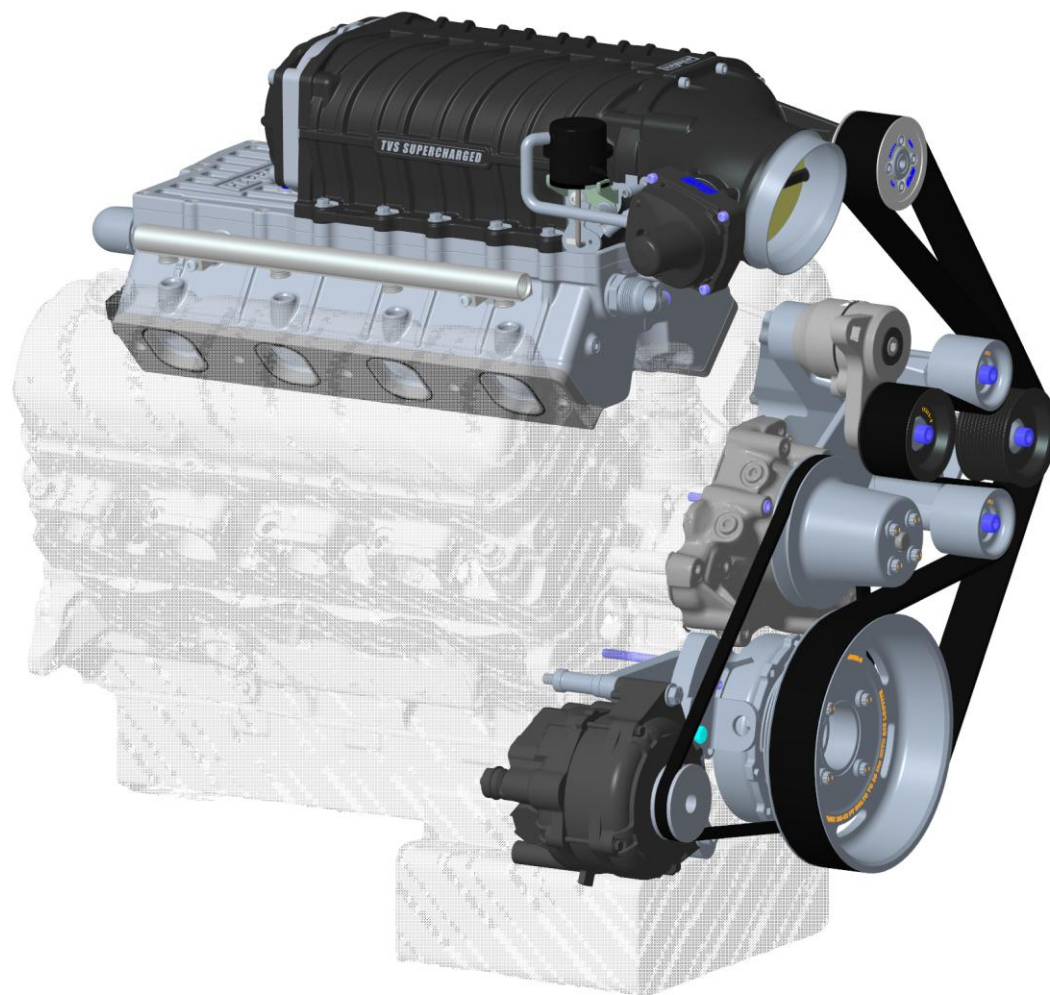
Tech Guide

Ford Clevor (9.2 / 9.5 deck) Supercharger



Key Features:

- High efficiency TVS2650 Mk2 Supercharger
- Optional TVS2650 MK2 CNC ported Supercharger
- Bypass valve integrated for increased efficiency at low engine loads
- Twin intercooler cores
 - -16 inlet and outlet
 - Compact 90 deg. rear swivel
- -8 ORB fuel rail fittings, Mounts to suit
 - Bosch EV14
 - Fuel Tech Low impedance (large body)
 - Fuel Tech High impedance (small body)
 - Siemens Deka 2400cc
- ACDelco style MAP sensor port
- Bosch 0280130039 IAT sensor
- 1/8" NPT boost referenced ports
- Choice of 5 different front covers to suit various airbox and throttle needs
- Thermal insulators Head → Manifold
- Air gap to valley plate to minimize heat transfer
- 12PK drive system
- Right side alternator mount
- Current intake port to suit Higgins 3.3 head



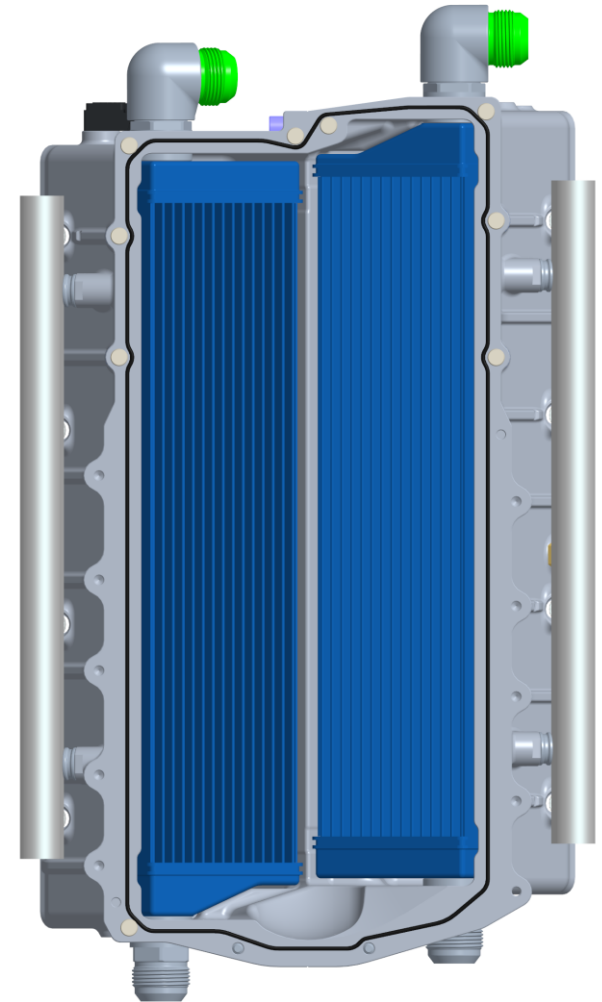
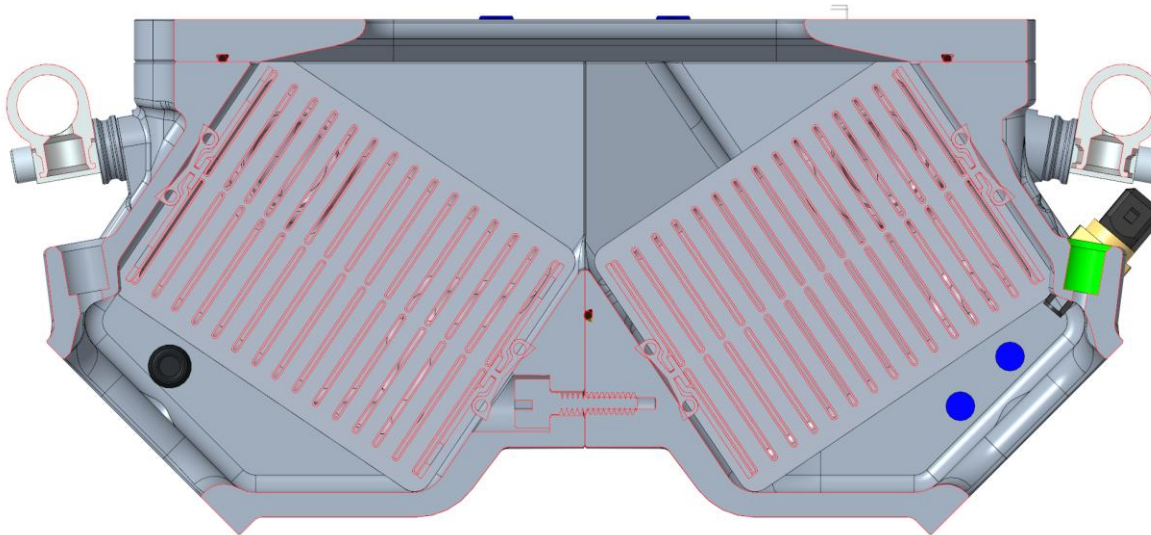
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Ford Clevor (9.2 / 9.5 deck) Supercharger



Intercooler layout and dimensions

- Dual intercoolers
- 378mm x 102mm x 73mm
- -16 AN fitting (90 deg compact swivel rear)



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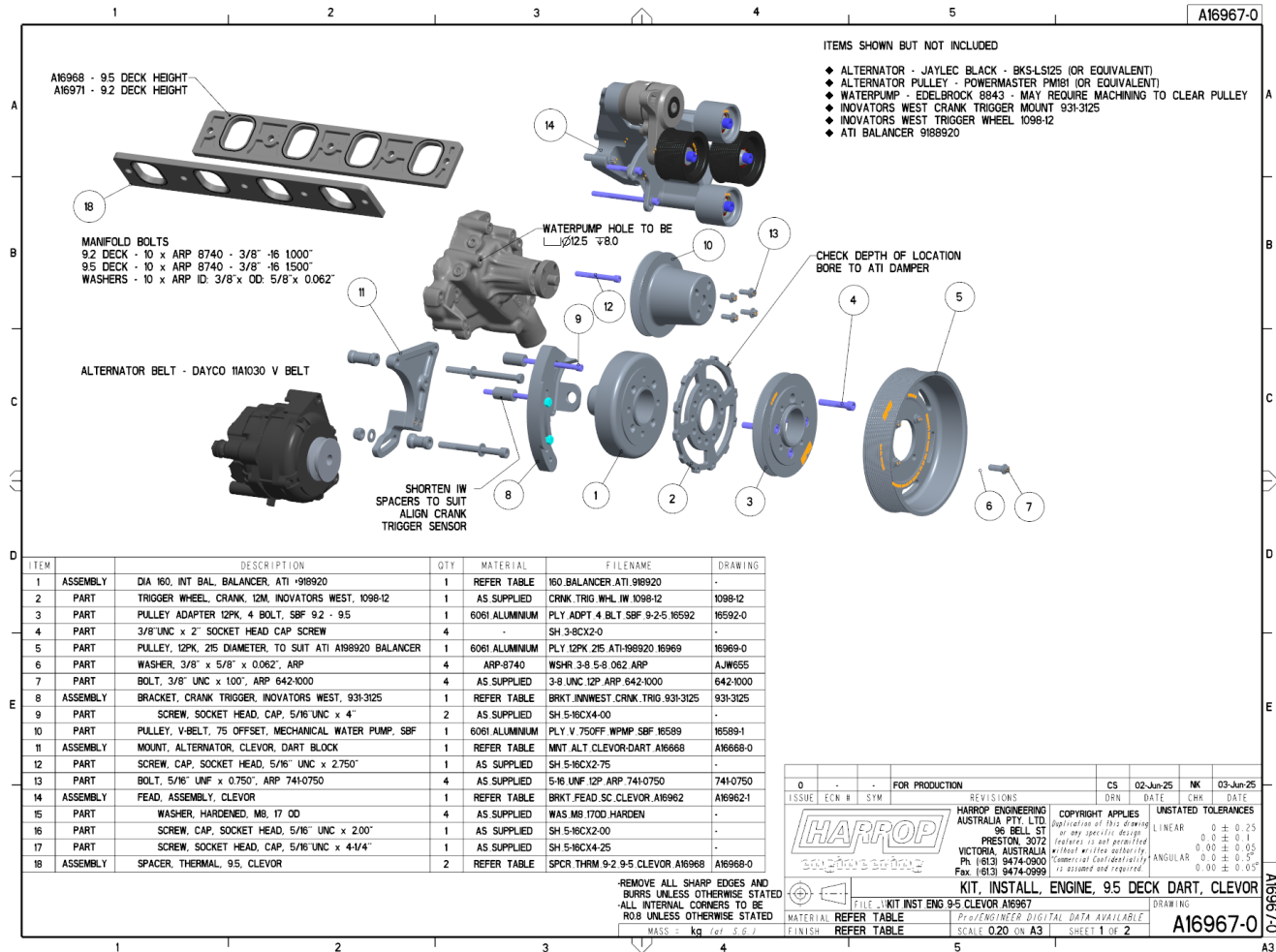
Ford Clevor (9.2 / 9.5 deck) Supercharger



Engine installation kit

Items required for installation (Not supplied with kit)

- **Alternator**
Jaylec black - #BKS-LS215 (or equivalent)
- **Alternator pulley**
Powermaster - #PM181 (or equivalent)
- **Waterpump**
Edelbrock - #8843 - May required clearance machining
- **Crank trigger mount**
Inovators west #931-3125
- **Crank Trigger wheel**
Inovators west #1098-12
- **Cam sync**
- **MSD Ford 351W sync** #85061
- **Damper**
ATI - #918920
- **Valley plate**
Bolt on – requires block drilling - tapping



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Ford Clevor (9.2 / 9.5 deck) Supercharger

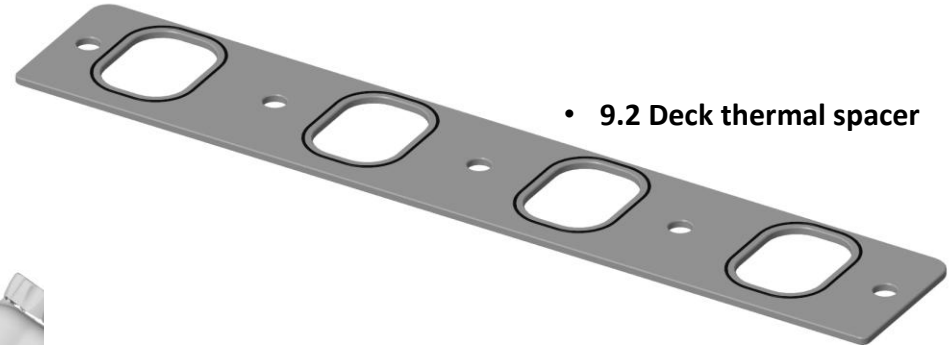


Harrop Clevor Thermal spacers

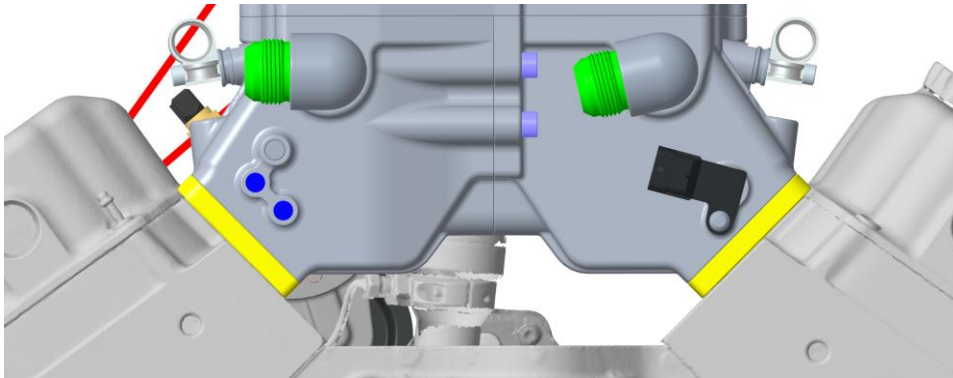
- Thermal spacers / adaptors for 9.2 – 9.5 deck heights (shown in Yellow below)
- Manifold bolts
 - 9.2 Deck - 10 x ARP 8740 - 3/8" -16 1.000"
 - 9.5 Deck - 10 x ARP 8740 - 3/8" -16 1.500"
- Washers - 10 x ARP ID: 3/8"x OD: 5/8"x 0.062



- 9.5 Deck thermal spacer



- 9.2 Deck thermal spacer



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Ford Clevor (9.2 / 9.5 deck) Supercharger

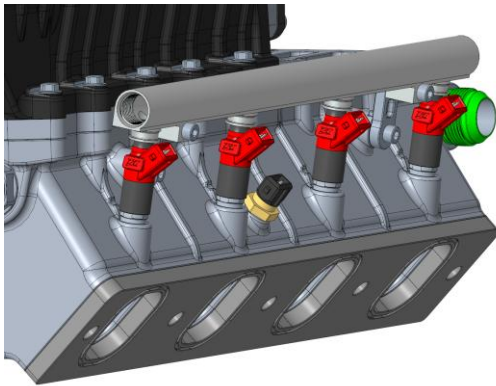


Injector / fuel rail mount options

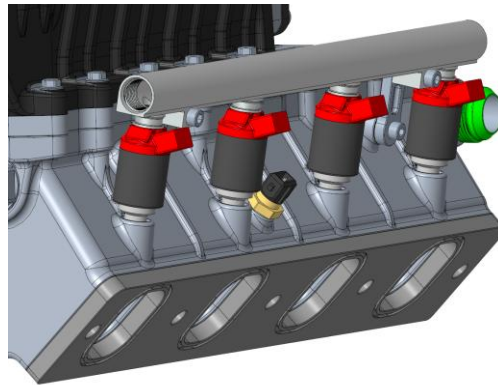
- Bosch EV14 Compact injectors
 - 99-ASPC16436 x 4
- FuelTech Small body injectors (80, 210, 170, 240 LB/HR)
- Siemens DEKA (220LB/HR)
 - 99-AMNT16986 x 4
- FuelTech large body injectors (320, 520, 720, 1020 LB/HR)
 - 99-AMNT16439 x 4



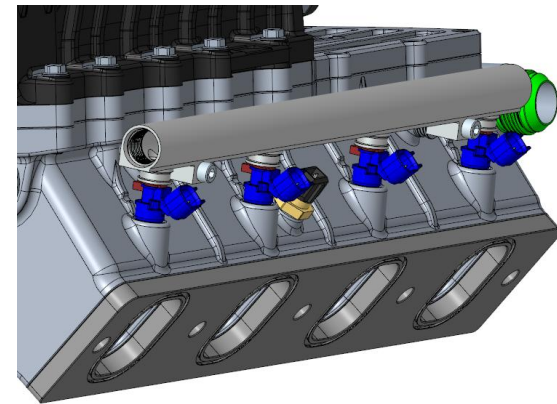
- FuelTech Small body injectors



- FuelTech large body injectors



- Bosch EV14 Short injectors



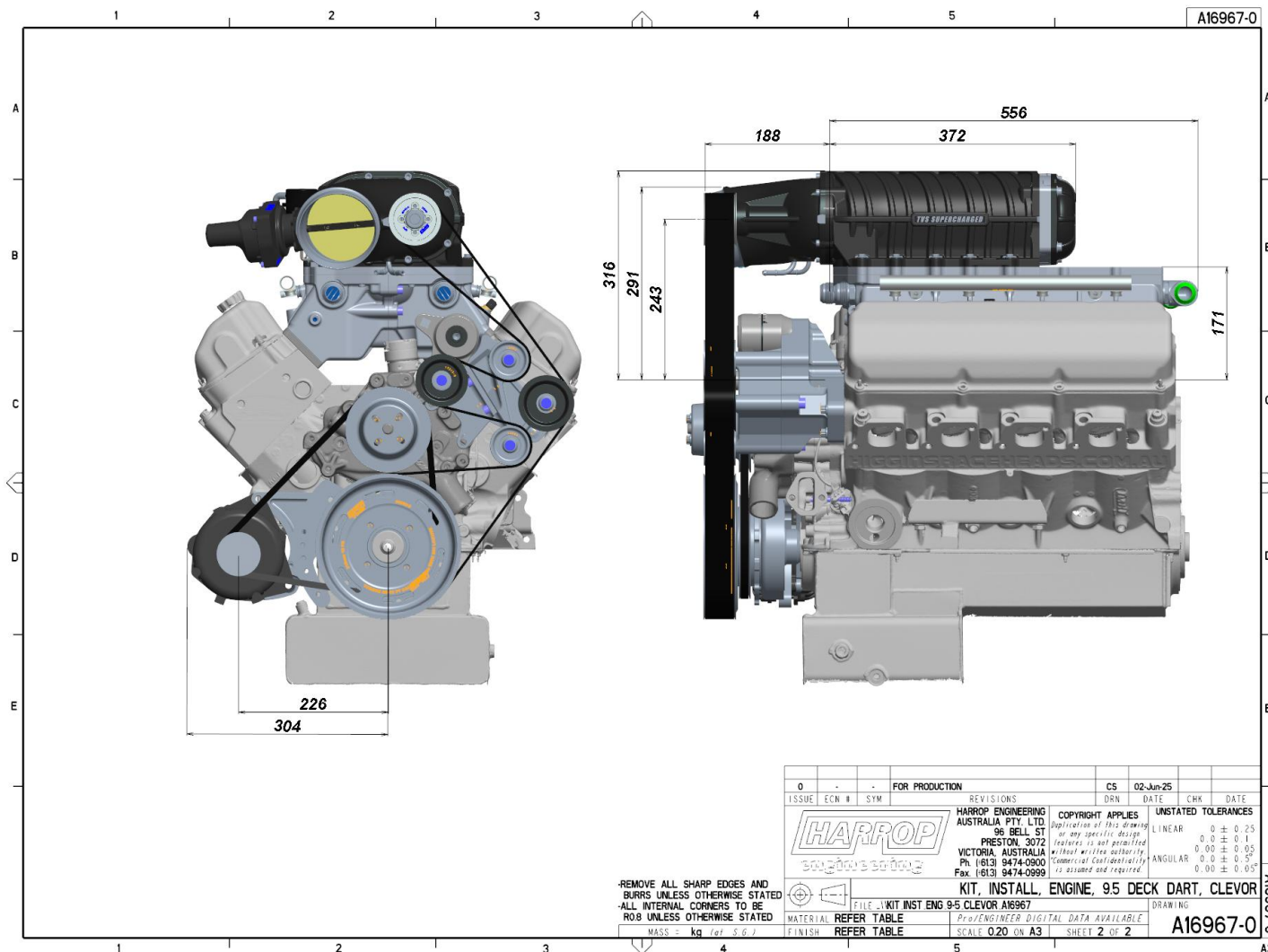
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Ford Clevor (9.2 / 9.5 deck) Supercharger



Harrop Clevor 9.5 dimensions

- Vertical dims shown from 9.5 deck valley surface
- Horizontal dimensions shown from front block face

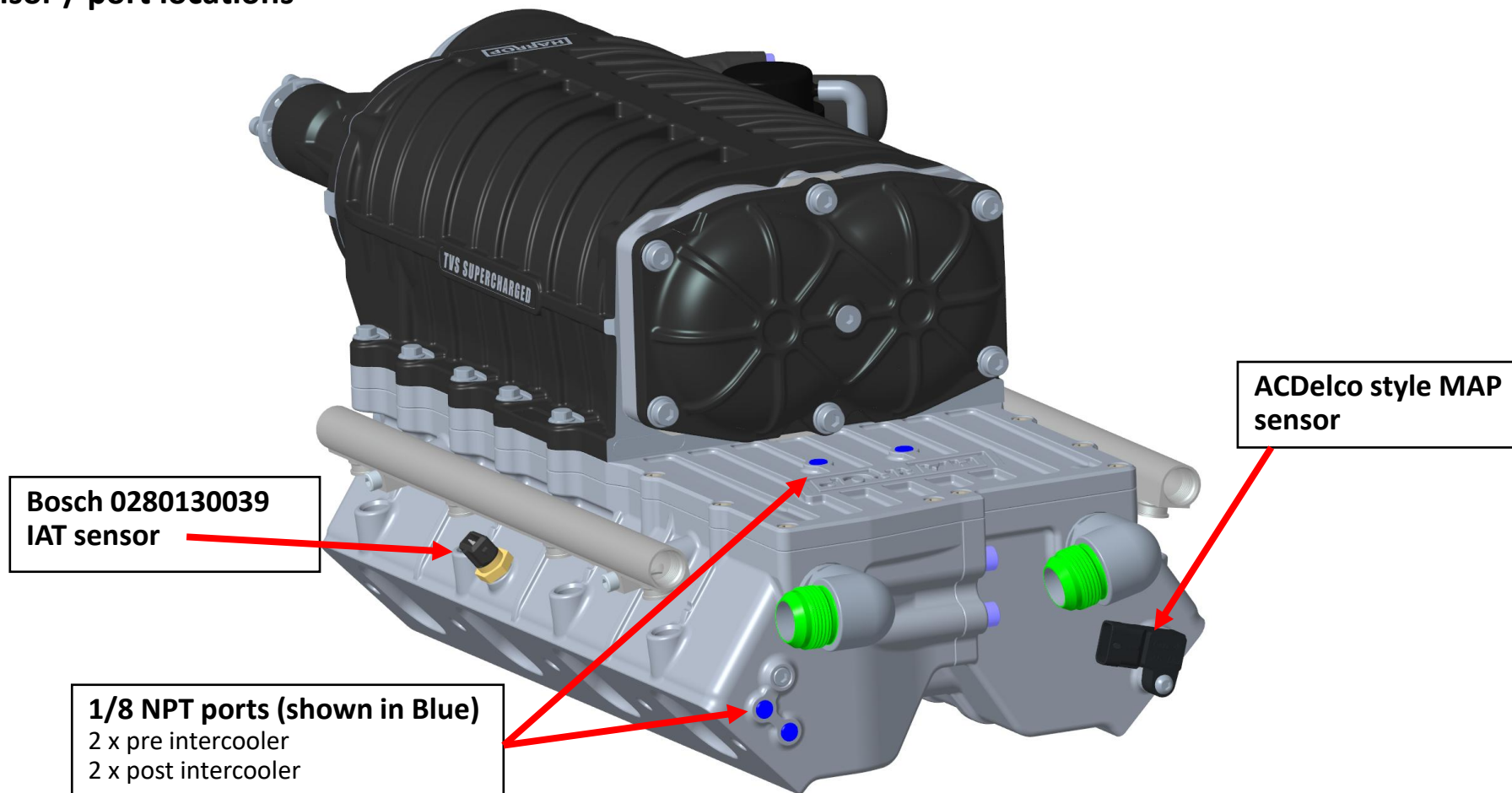


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Ford Clevor (9.2 / 9.5 deck) Supercharger



Sensor / port locations



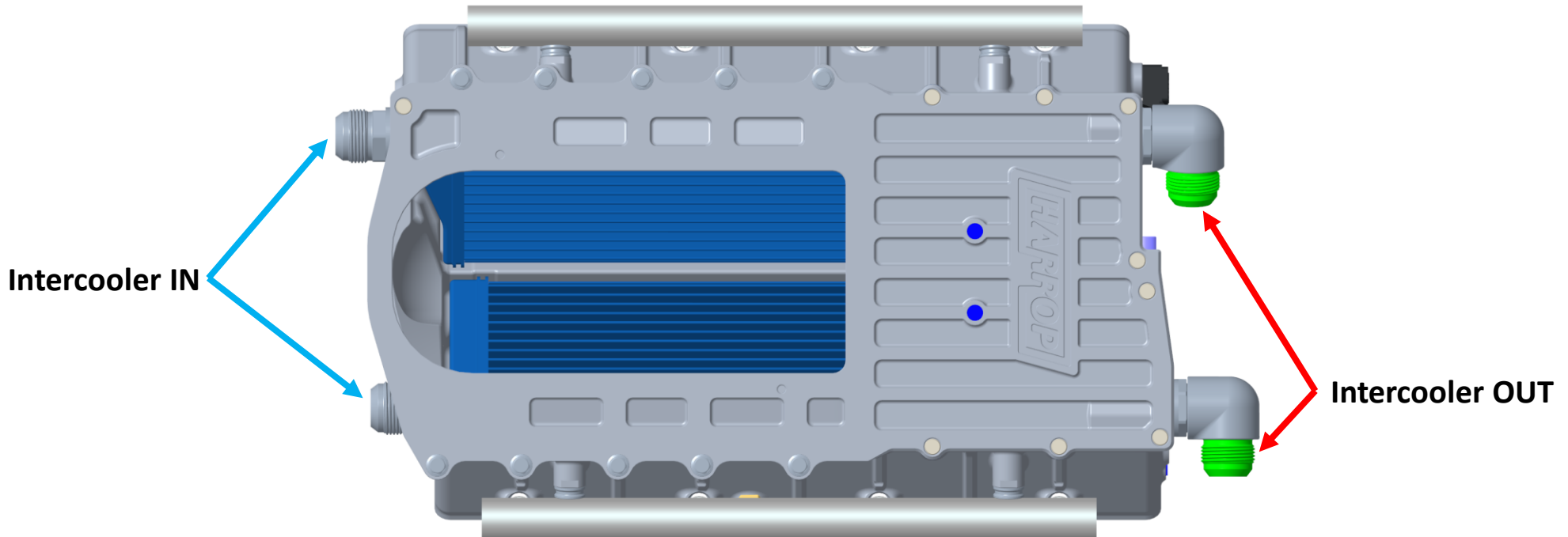
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Ford Clevor (9.2 / 9.5 deck) Supercharger



Intercooler routing

- Single pass
- Fittings -16 AN



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Ford Clevor (9.2 / 9.5 deck) Supercharger

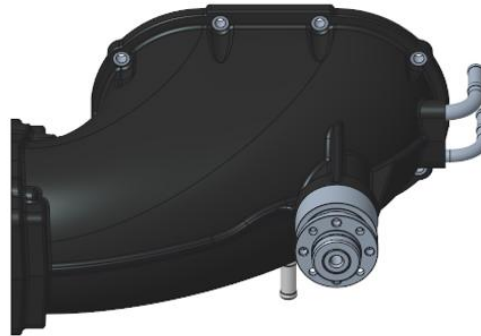


Supercharger Front Cover Options



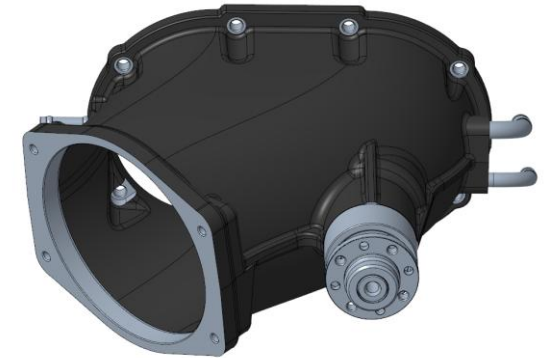
99-ACVR13167

Straight facing to suit LS/LT 90 to 103mm TB



99-ACVR14234

RH facing to suit LS/LT 90 to 92mm TB

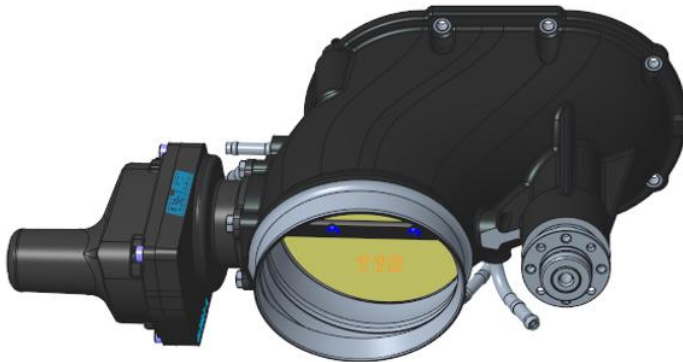


99-ACVR17002

RH facing to suit NW120mm LS – LT TB

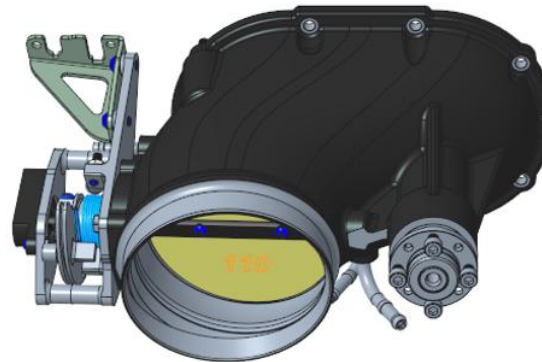
99-ACVR13169

Integrated 110mm electronic actuation



99-ACVR14983

Integrated 110mm cable actuation



Kit part numbers

- Manifold Assembly - 99-AMFD16429-EX-SC
- Supercharger 2650 MK2 – 99-ASCH15425-SHORT
- Supercharger 2650 RP-CNC – 99-ASCH15425-SHRT-RP
- Supercharger Inlet Adaptor - 99-ACVRXXXXX (See page 10)
- Supercharger Pulley – 99-PLYXXXX (See page 12)
- Supercharger Belt – 12PK XXXX (See page 12)
- Engine Install kit 9.2 Deck – 99-AKIT16967-9.2
- Engine Install kit 9.5 Deck – 99-AKIT16967-9.5

Fuel rail mount part numbers

- **Bosch** EV14 Compact injectors - 99-ASPC16436 x 4
- **Fueltech** Small body injectors (High Impedance) (80, 210, 170, 240 LB/HR) / **Siemens DEKA** (220LB/HR) - 99-AMNT16986 x 4
- **Fueltech** large body injectors (Low Impedance) (320, 520, 720, 1020 LB/HR) - 99-AMNT16439 x 4

Tech Guide

Ford Clevor (9.2 / 9.5 deck) Supercharger



Belt Drive Configuration

Supercharger drive (S/C speed @ 8000 Engine RPM)

9.2 Deck

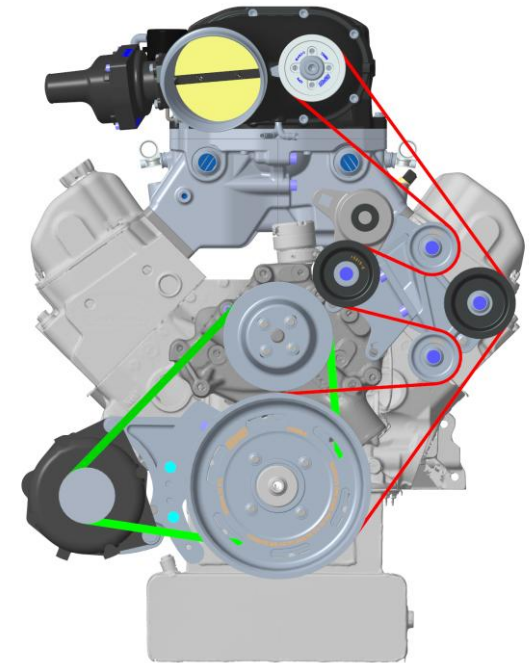
Crank pulley	Supercharger pulley	Tensioner Idler	Belt	S/C Speed
99-PLY16969 215mm	99-PLY15491GT 65mm	99-APLY15315 75mm	12PK2165HD	26461
99-PLY16969 215mm	99-PLY15492GT 70mm	99-APLY15315 75mm	12PK2165HD	24571
99-PLY16969 215mm	99-PLY15493GT 75mm	99-APLY15315 75mm	12PK2165HD	22933
99-PLY16969 215mm	99-PLY15494GT 80mm	99-APLY15315 75mm	12PK2165HD	21500
99-PLY16969 215mm	99-PLY16328GT 85mm	99-APLY15316 70mm	12PK2165HD	20235

9.5 Deck

Crank pulley	Supercharger pulley	Tensioner Idler	Belt	S/C Speed
99-PLY16969 215mm	99-PLY15491GT 65mm	99-APLY15315 75mm	12PK2179HD	26461
99-PLY16969 215mm	99-PLY15492GT 70mm	99-APLY15315 75mm	12PK2179HD	24571
99-PLY16969 215mm	99-PLY15493GT 75mm	99-APLY15316 70mm	12PK2179HD	22933
99-PLY16969 215mm	99-PLY15494GT 80mm	99-APLY15316 70mm	12PK2194HD	21500
99-PLY16969 215mm	99-PLY16328GT 85mm	99-APLY15316 70mm	12PK2194HD	20235

Alternator drive (shown in Green)

V belt – Dayco A111030



Tech Guide

Ford Clevor (9.2 / 9.5 deck) Supercharger



Performance Data

Engine Specs	Fuel	Pulley setup - Crank → S/C Drive Ratio	Boost	Torque (FT/LB) @ RPM	Power (HP) @ RPM
9.2" 427 ci Higgins 3.3 heads 120mm DBW RH bias Throttle 2650 MK2 Ported	Pump E85	205 / 65 3.15 Ratio	18 PSI	1102 @ 5800	1502 @ 8500