

# TDI **TURBOTWIN**™

## Model T30-Y

### Pre-engaged Air Starter

**PN: T306-60091-27R**

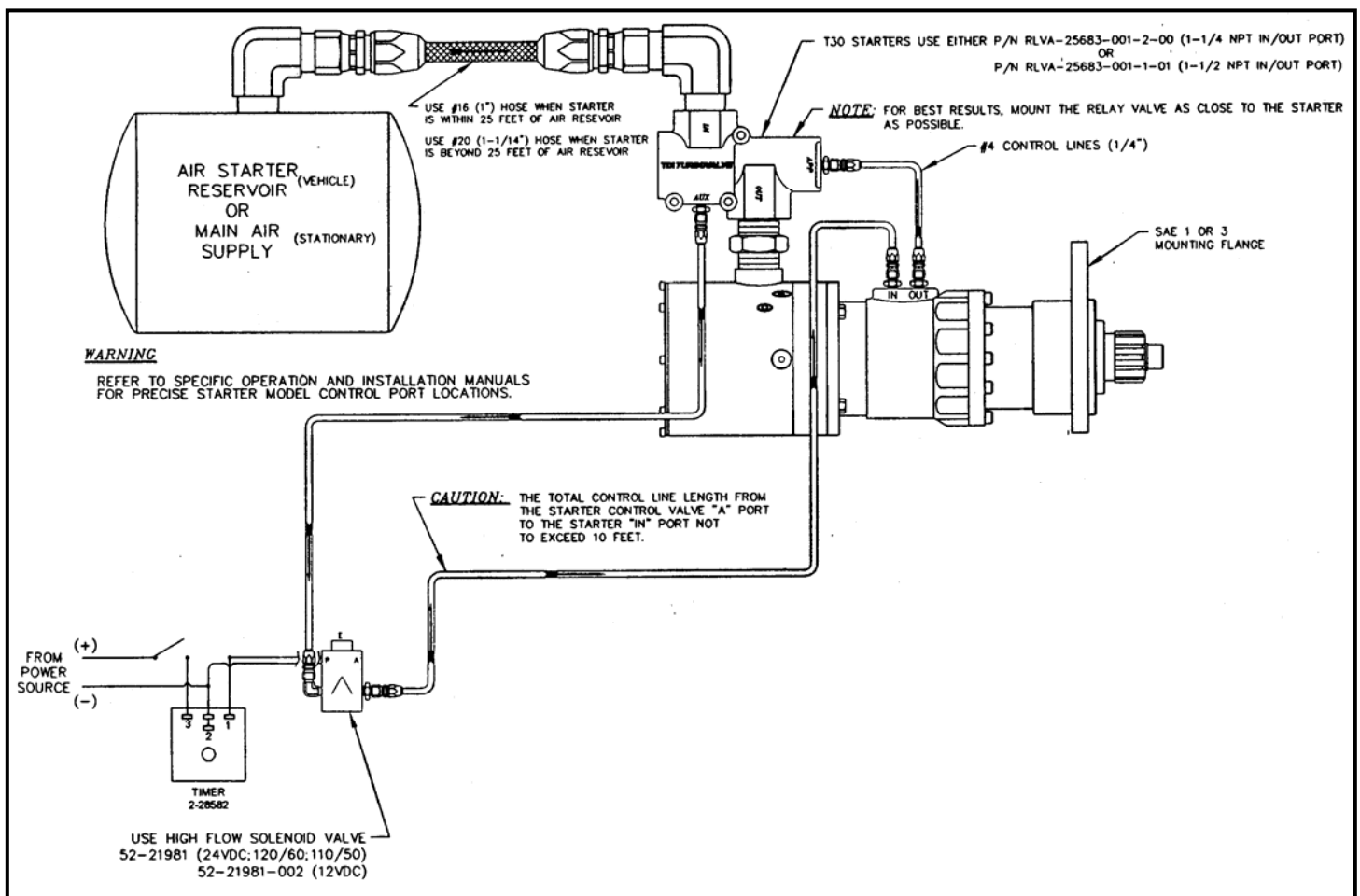
#### **TURBOTWIN™ Model T30-Y** **ENGINE AIR STARTERS**

- The TDI **TURBOTWIN** T30-Y air starter (PN: T306-60091-27R) is suitable for starting gas or diesel engines up to 12 liters (720 CID)...see installation and selection guidelines. This includes Cummins 6BT5.9 engines. **APPLICATION VERSATILITY**
- The turbine motor used in the model T30-Y is the same rugged design used in the complete line of **TURBOTWIN** starters. Properly installed, the **TURBOTWIN** motor is highly resistant to damage caused by wet or hard contaminated drive air. A strainer may be recommended on the air supply circuits which actuate starter pinion engagement. **CONTAMINATED SUPPLY AIR**
- Installation requires only a starter relay valve (recommend TDI **TURBOVALVE**), and operation within each starter model recommended maximum pressure. The T30-Y features modular construction and individual parts are easily serviced. This provides T30-Y users with simple and low cost starter repair and overhaul in the future. **SIMPLICITY**
- The T30-Y air starter's efficient twin-turbine motor now delivers more torque using less air than previous starter designs. In addition, the T30-Y's superior engagement mechanism provides users with true low pressure operation... on air pressures as low as 30 psig. **LOW AIR CONSUMPTION**
- The gear train and bearings are factory grease-packed for the life of the starter, therefore it requires no maintenance. There are no rubbing parts, so there is no external lubrication required. Lubricator problems, installation expense, system maintenance, and the messy and hazardous oil film around the starter exhaust can be eliminated. **NO MAINTENANCE DESIGN and ENVIRONMENTALLY SAFE**
- **TURBOTWIN** T30-Y air starters are constructed from durable, corrosion resistant, and high quality materials. Major components are made from high strength aluminum or steel alloy. As with all **TURBOTWIN** series starters, there are no plastic parts inside. **HEAVY DUTY CONSTRUCTION**
- The T30-Y can be used over a wide range of drive pressures from 30 psig (1.3 BAR) to 60 psig (4 BAR). The lightweight, 31 lbs (14 Kg). unit is capable of delivering over 10 HP (7.50 kW) of cranking power at only 60 psig (4 BAR). **BROAD RANGE of OPERATION**

- The high power of a turbine air motor combined with a planetary gear speed reducer results in a very efficient and reliable unit. A two stage axial flow turbine coupled to a spur gear reduction set powers the *TURBOTWIN* T30-Y.
- Tech Development introduced the first turbine technology for starting industrial engines in 1979. The *TURBOTWIN* T30-Y starters feature an innovative and more reliable turbine motor than anything on the market today.
- The *TURBOTWIN* T30-Y is the result of TDI's continuing turbine starter design innovations. Based on our successful *TURBOTWIN* T100 Series starters, the *TURBOTWIN* T30-Y starters should exceed customer requirements in every installation.

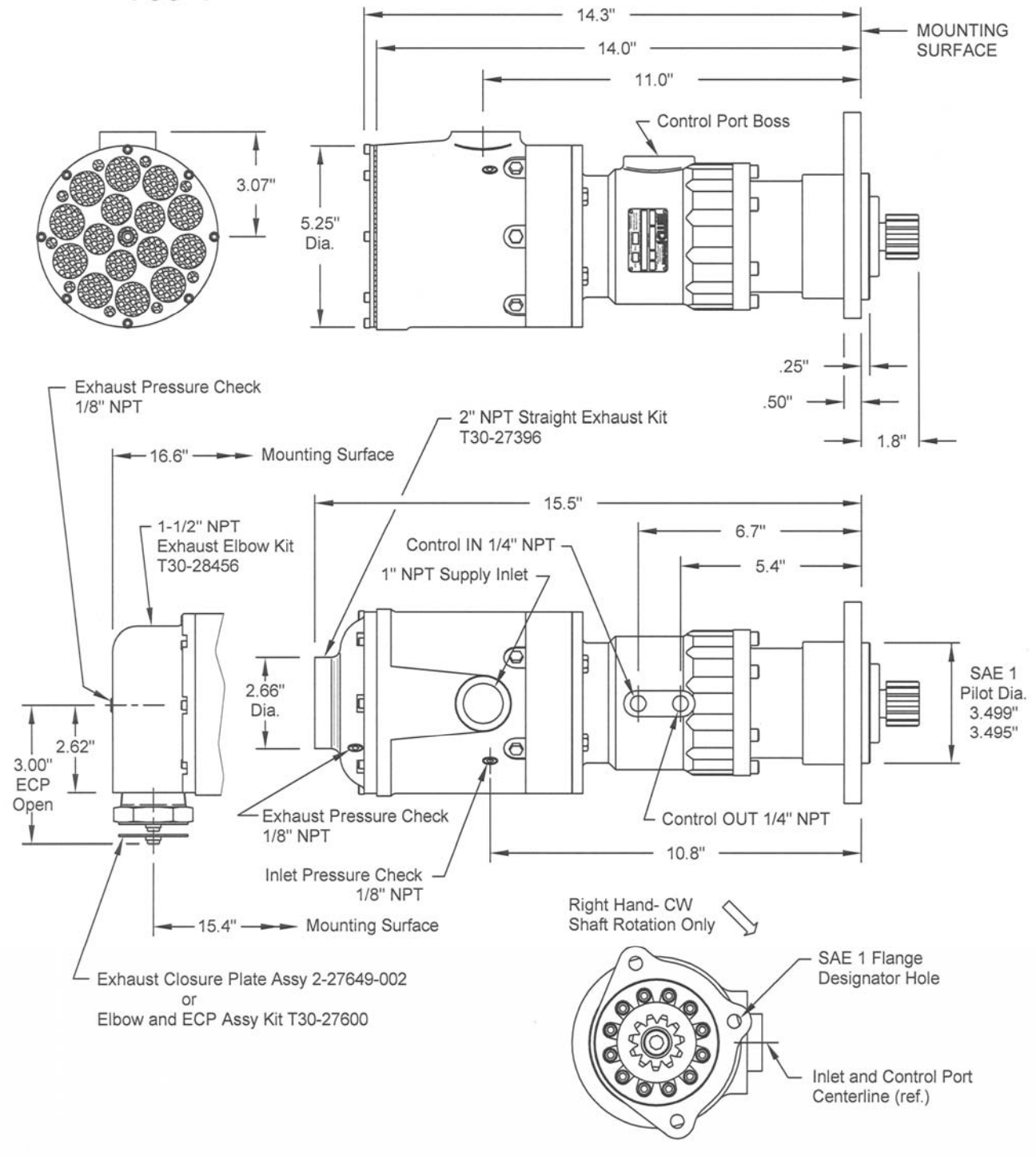
## DESCRIPTION OF OPERATION

## DEVELOPMENT HISTORY



**DIMENSIONAL DATA**

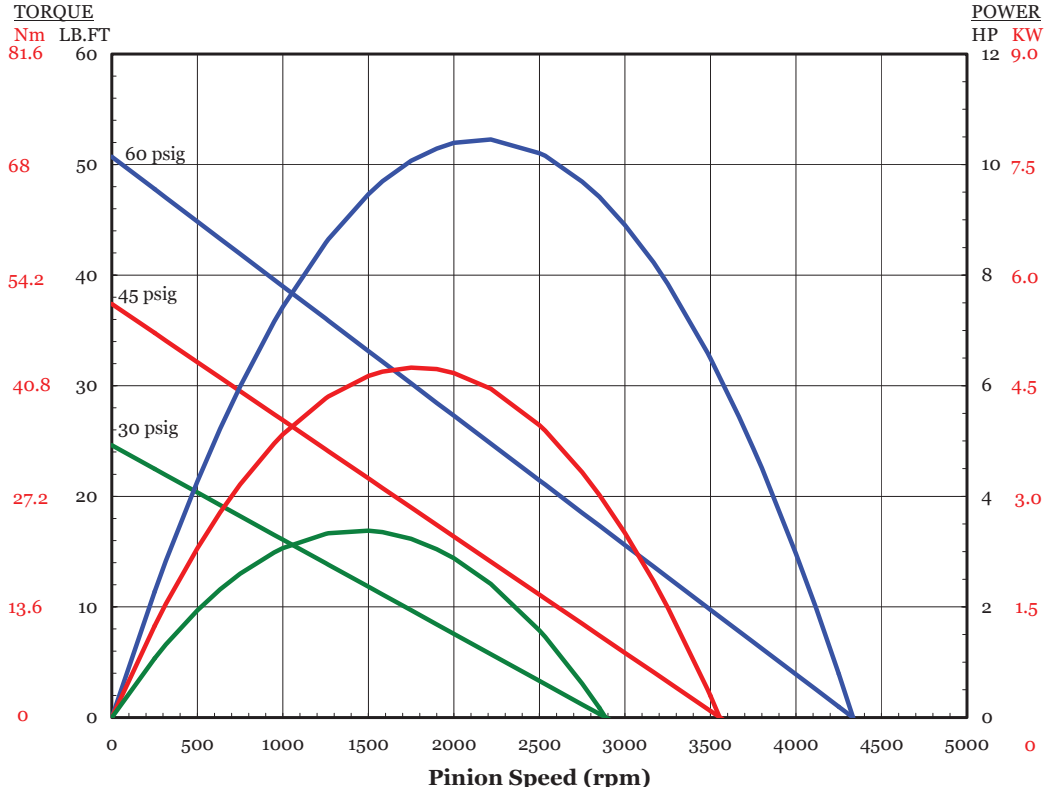
**TDI TURBOTWIN  
T30-Y**



# TDI TURBOTWIN T30-Y PERFORMANCE CURVES

Model: T30-Y  
6 Nozzles  
70° F Compressed Air  
9.0:1 Gear Ratio

INLET Pressure	FLOW (Scfm)	FLOW (Nm <sup>3</sup> /h)
60 PSIG	255	434
45 PSIG	204	347
30 PSIG	153	260



Model: T30-Y  
6 Nozzles  
70° F Natural Gas  
9.0:1 Gear Ratio

INLET Pressure	FLOW (Scfm)	FLOW (Nm <sup>3</sup> /h)
60 PSIG	330	561
45 PSIG	264	448
30 PSIG	197	336

