



*Installation Manual for*

*Paxton Automotive*

**NOVI 2000**

*for the*

**Mustang 5.0L and 5.8L**

**Renegade Race Class**

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(805) 604-1336 • FAX (805)604-1337

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# FOREWORD

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**C**ongratulations! You have purchased the finest complete race-ready supercharger kit available today. The centerpiece of this kit is the High Efficiency PAXTON NOVI 2000 Race Supercharger, a mechanically driven centrifugal blower.

This kit comes with all the parts you will need to install the supercharger. Paxton Automotive assumes that you are an experienced automotive mechanic, and have a stripped down Mustang 5.0 or 5.8 engine.

For the quickest installation time, we suggest that you read this manual thoroughly before beginning. Make sure that you understand the process, have identified the areas of the car that you will be working on, and have the tools that you will need on hand. We estimate installation time at less than 8 hours, not including tune-up. Once again we recommend reading the manual before beginning the installation. We are available for tech support at 805 647-3796, Monday through Friday, 8:00 AM to 4:30 PM. PST.

After reading the manual, verify that all major assembly groups are present in the main kit box. As you remove a box or bag, note the identification label and compare it to the parts list.

**PAXTON AUTOMOTIVE makes every effort to insure that all parts are included in the box. If you discover that you are missing any part, or that a part was damaged in shipping, call PAXTON immediately. DO NOT begin installation if a part is missing. Failure to contact PAXTON prior to beginning installation will result in a charge for the missing part.**

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# IMPORTANT NOTES

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We suggest that the engine compartment be cleaned before the installation. You can clean the engine with a pressure washer that is found at self-serve car washes. Use a safe-for-aluminum cleaner/degreaser, and cover the distributor and any electronics with a plastic bag to prevent water from entering.

You are undoubtedly eager to get started, but

please take a little more time to insure that your safety is not in jeopardy. A moment's lack of attention may cause a serious injury to you, or to someone else who happens to be standing around. By following list is not meant to be a comprehensive list, but rather it is meant to make you aware of some of the risks, and encourage you to take a safety minded approach to your work area.

**Never rely solely on a floor jack when working underneath a vehicle. Always use jack stands that are rated for the weight of your vehicle, use them at the recommended lift points, and place your vehicle in 'PARK' or 'FIRST' gear with the parking brake set.**

**Always use eye protection when using power tools, such as drills, saws, and grinders, or when working underneath a vehicle.**

**Never smoke, use an open flame, or have spark producing items around gasoline or flammable objects. Always have a fire extinguisher that is rated for chemical and electrical fires handy when working on motor vehicles. Also, make sure that the extinguisher is fully charged.**

**Operate engines only in a well ventilated area. Carbon Monoxide, gasoline, and solvent vapors are colorless and sometimes odorless, and may asphyxiate and explode without warning.**

**Always disconnect the battery from your engine before doing work on the electrical or fuel systems, or doing underdash work.**

**The chemicals used in the vehicle systems, such as oils and coolants, are poisonous. Clean up any spills immediately, and dispose of waste materials properly. Pets, wild animals, and children may die if they ingest the liquid.**

**PAXTON Automotive thanks you for your purchase. We welcome your comments and suggestions to help us improve our products.**

# Section 1

## RENEGADE RACE KIT INSTALLATION

**Before beginning the installation of your supercharger, the engine should have all of its accessory drive components removed.**

### 1.1 SUPERCHARGER MOUNTING BRACKET INSTALLATION

- A. If you have not already done so, remove the alternator.
  1. Disconnect the battery
  2. Relieve tension on the drive belt
  3. Remove the belt
  4. Remove the alternator
  5. Remove the water pump pulley
- B. Install mounting bracket. (See Appendix "B", mounting bracket assembly.)

**\*\*\* NOTE \*\*\***

We suggest that you assemble the mounting bracket in an organized fashion, keeping the parts in order, as is shown in Appendix "B". It is especially critical to keep the proper spacers and washers together with their bolts. Refer to Appendix "B" for their locations.

**\*\*\* NOTE \*\*\***

Leave out the spacers (items #11, #40, and #41) in the initial installation of the mounting bracket. After the complete installation of the bracket, slip the spacers into place. If the spacers do not fit snugly, the spacers will have to be machined. This is due to the factory variations of the engine.

- C. Place the triangular spacer (item #12) against the cylinder head, and attach the back plate (item #3) to the engine block using the 2.5" x 7/16" screw and washer, (items #33, #34). The screw passes through the spacer and into the cylinder head at the point shown. (See Fig. 1-a.)

7-Bolt Points for the S/C Bracket



Fig. 1-a

- D. Slip the spacers (items #5, #6) into the counter-bored holes in the back plate.
- E. Attach the small triangular bracket (item #8) to the lower part of the timing cover using bolts (items #26, #27). (See Fig. 1-a.)

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# Section 2

## Mounting Plate Installation

### 2.1 INSTALL THE S/C MOUNTING PLATE

- A. Attach the supercharger mounting plate, (*item #2*) to the back plate using the 7-1/2" long 7/16" bolt (*item #31*). DO NOT fully tighten. DO NOT install the bolts and spacers that go into the water pump at this time. (*items #40, #41*.)
- B. Slide the three 7/16" bolt with washers (*item #32, #35*) through the front supercharger support plate. Slide the spacers onto the bolts, and loosely attach the bolts to the other brackets.
- C. Slide the support arm (*item #7*) between the two plates until the single hole at the end of the support arm lines up with the hole at the center of the triangular bracket. (*Item #8*.)

\*\*\* NOTE \*\*\*

*There are two sets of holes in the support arm. This is to accommodate the different deck heights on the 302 and 351 engines. Secure the support arm using the two 3/8" bolts (*item #22*). DO NOT fully tighten. DO NOT install the spacer (*item #11*) at this time.*

### 2.2 PLASTIC IDLER INSTALLATION

- A. Install the plastic accessory idler using the 8-3/4" long bolt and washer (*items #29, #30*) and the step collar (*item #18*). **DO NOT** fully tighten.
- B. Slide the spacer (*item #10*) between the two plates so it lines up with the hole that is the second from the bottom, as shown in *Appendix "B"*. Slide the bolt (*item #36*) through both plates and spacer to hold it in place.

\*\*\* NOTE \*\*\*

*If you are using a pulley combination other than those supplied by Paxton, you may have to re-position this spacer either up or down, depending on the pulley diameter. DO NOT install the pulley at this time.*

- C. Go back and tighten all loose bolts. Check the fit of the remaining spacers (*items #11, #40, #41*). They should fit snugly into place. Due to the factory tolerance, after market heads, water pumps, gasket thicknesses, etc., these spacers may need to be shortened slightly. Failure to assure a proper fit for these spacers, either leaving them too long or too short, will cause the bracket to sit crooked and may cause a thrown belt. Measure as accurately as possible.

\*\*\* NOTE \*\*\*

*The 351 based engines will use only one bolt and spacer into the water pump.*

- D. Install the idler pulleys (*item #17, #19*), the supercharger bolts (*item #21*) and spacers (*item #4*).
  1. Attach the oil drain (not provided in this kit) to the supercharger.
  2. Attach the oil supply hose (*Appendix "F"*) to the NOVI 2000.
  3. Install the NOVI 2000 Race Supercharger.
  4. Connect the oil supply hose to an oil supply. This can be located at the oil sender unit.

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# Section 3

## ALTERNATOR MOUNTING BRACKET INSTALLATION

### 3.1 ALTERNATOR RELOCATION

#### \*\*\* NOTE \*\*\*

The alternator Relocation kit was designed for the factory '86-'93 style 70 AMP alternator with the stock pulley. If you are running an underdrive pulley you will need to acquire a longer belt. This bracket will not accommodate the larger 140 AMP alternator. For most racing applications, 70 AMPS is more than enough to power the multiple fuel pumps, computers, and ignition systems.

- A. Install the alternator Relocation Bracket (See Fig. 3-a, Appendix "E"), including the water pump pulley, to the engine block at the points indicated. (See Fig. 3-b.)
- B. Install the alternator.



Fig. 3-a

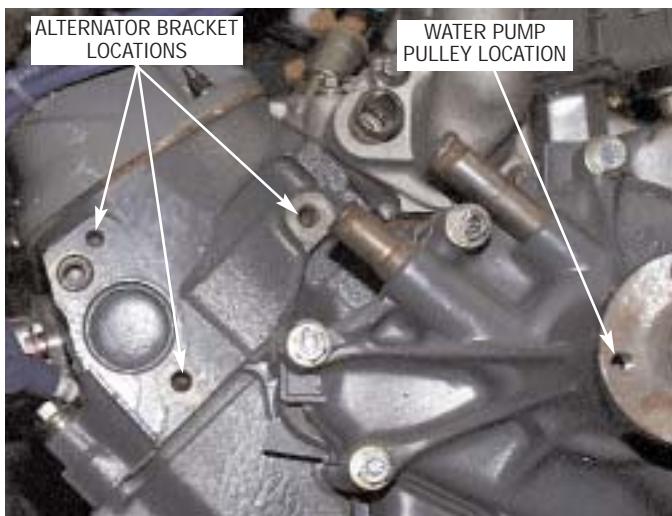


Fig. 3-b

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# Section 4

## AIR INLET/DISCHARGE TUBE INSTALLATION

### 4.1 INSTALL THE DISCHARGE TUBE

- A. Install the discharge tube to the NOVI 2000 supercharger. (See Appendix "G".)
- B. Attach one 3.00" sleeve to the discharge of the supercharger with two T-bolt clamps that are provided. Leave the clamps loose.
- C. Install (*item #2 4PFA012-071*) to the 3.00" sleeve just installed to the discharge of the S/C.
- D. Attach a 3.00" sleeve and clamps to the discharge duct (*item #1 4PFA012-051*) and attach duct to item #2 previously installed to the discharge of the S/C.
- E. Attach two 3.00" sleeves and clamps to the discharge duct (*item #3, 4PFA012-061*), and attach to the previous duct that was installed.
- F. Adjust ducts for alignment and tighten clamp
- G. To be legal for the Renegade Race Class, install the Renegade Venturi Sleeve at the inlet of the supercharger. (See *Fig. 4-a*.)

RENEGADE SLEEVE ATTACHED TO  
NOVI 2000 (CUTAWAY)



*Fig. 4-a*

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# Section 5

## CRANK PULLEY INSTALLATION

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### 5.1 INSTALL THE CRANK PULLEY

- A. Install the crank pulley. (See *Fig. 5.1-a* and *Appendix "D"*.)



*Fig. 5.1-a | Crank Pulley Location*

- B. Torque all bolts down to factory specs.
- C. Install the drive belts. First the alternator belt (around the 6-groove pulley), then the supercharger drive belt.
- D. This completes the installation of the NOVI 2000.

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# Section 6

## A FINAL WORD

Thank you for purchasing this Paxton supercharger. Please understand that we are constantly improving and upgrading our product, so there may be pictures in this manual showing parts that appear different than the parts in your kit. This may be due to pictures taken

in pre-production, a change in material, or a different engine model year for our illustrations. Rest assured that the parts will install in the same way as described in this manual. You have purchased the most up-to-date kit that Paxton is selling at this time.

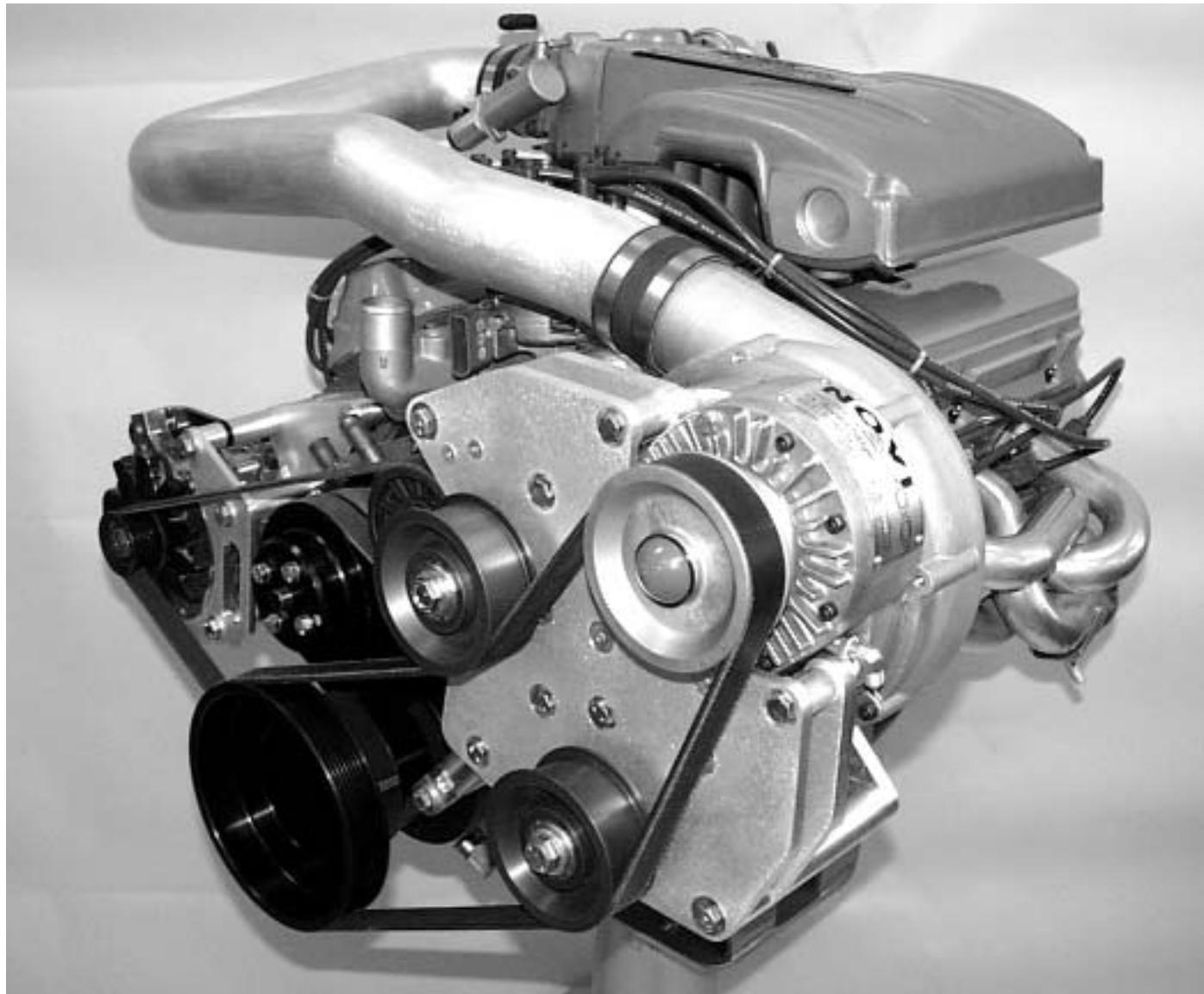


Fig. 6.1-b

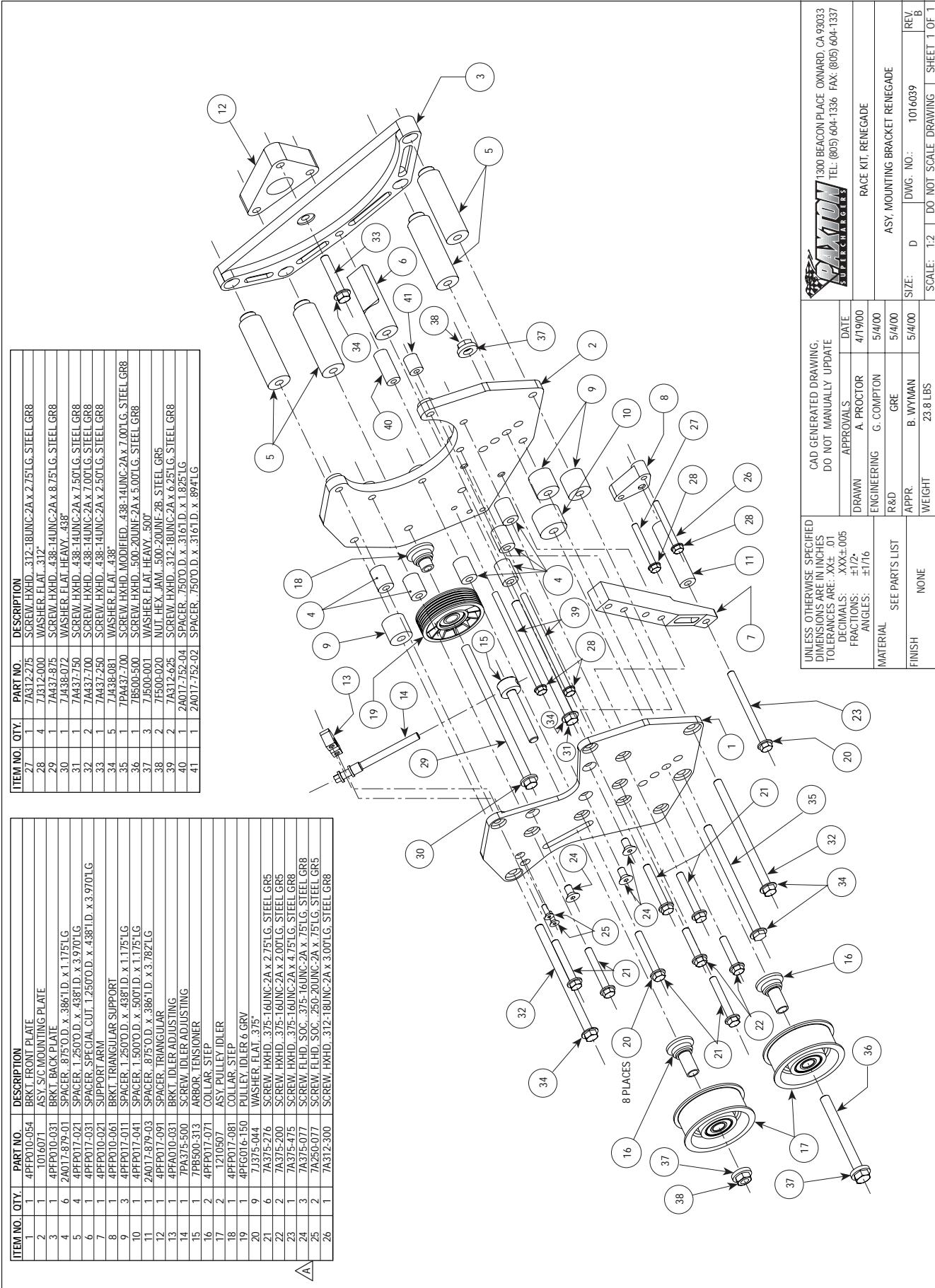
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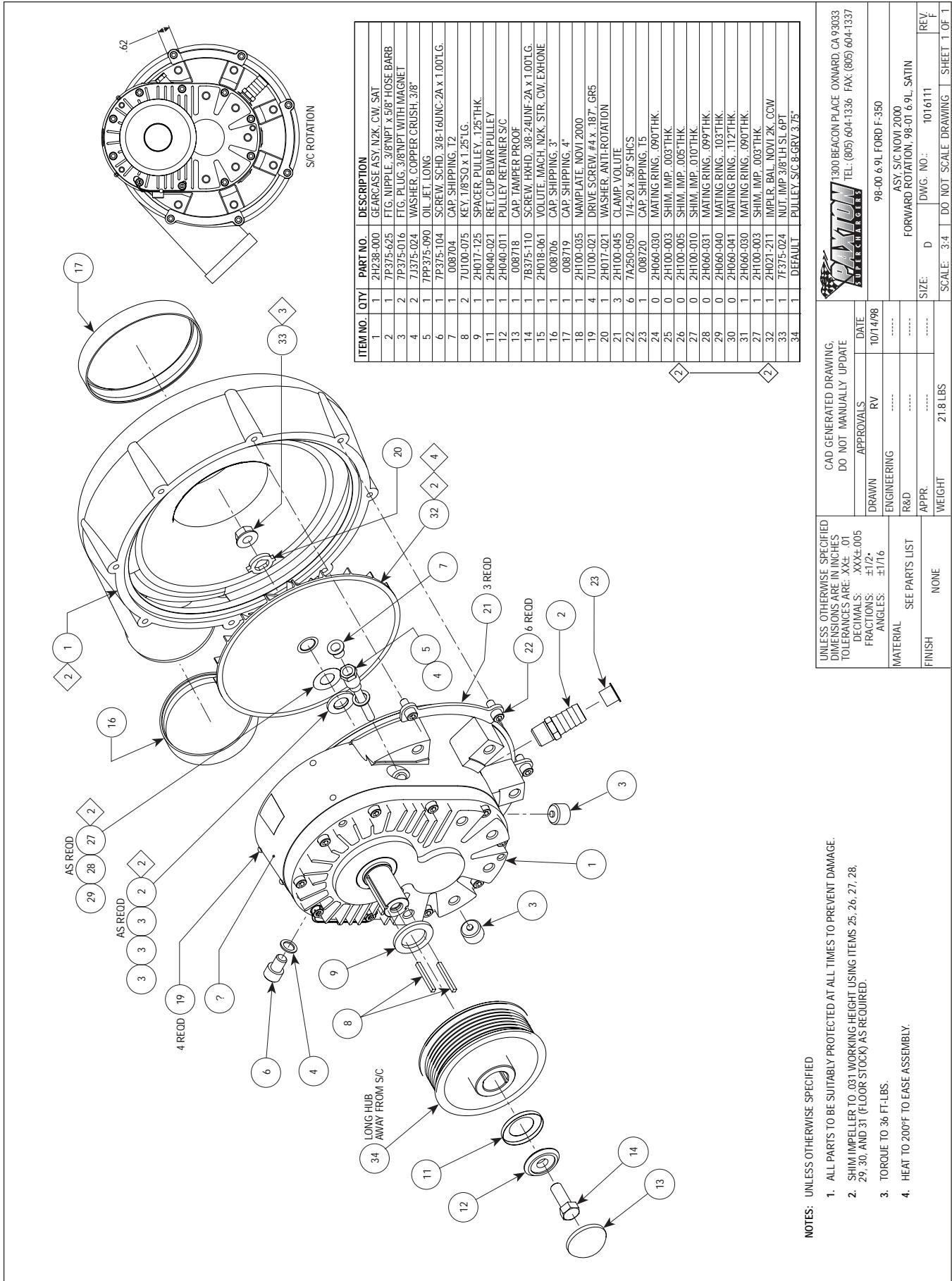
# APPENDIX

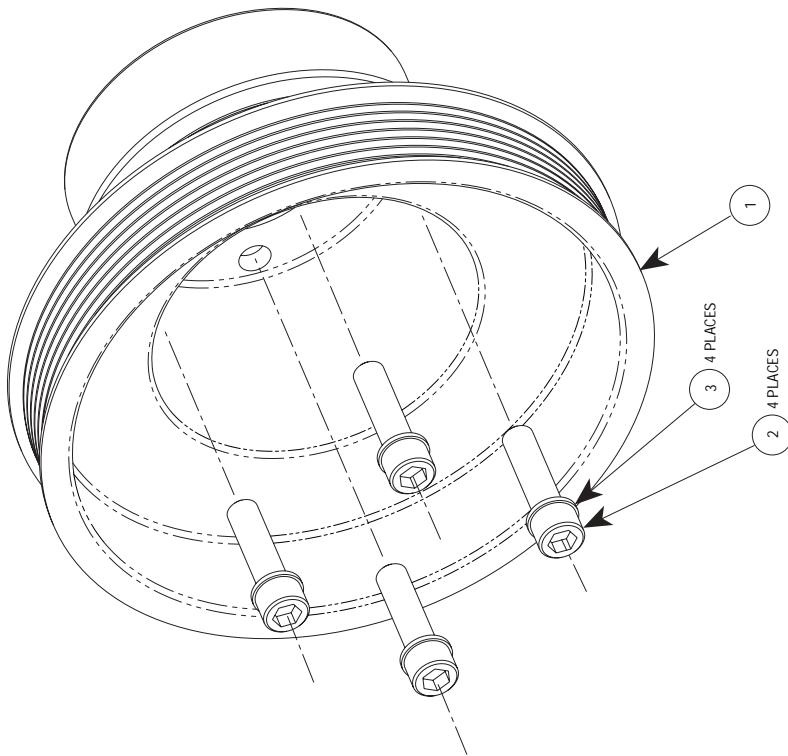
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: .XX±.01 DECIMALS: .XXX±.005 FRACTIONS: ±1/12, ANGLES: ±1/16		CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE	
		APPROVALS	
MATERIAL	SEE PARTS LIST	DRAWN	A. PROCTOR
FINISH	NONE	DATE	4/19/00
	WEIGHT	R&D	G. COMPTON
	23.8 LBS	APP.R.	B. WYMAN
		SIZE:	D
		DWG. NO.:	1016039
		REV:	B
		SCALE:	1:2   DO NOT SCALE DRAWING   SHEET 1 OF 1



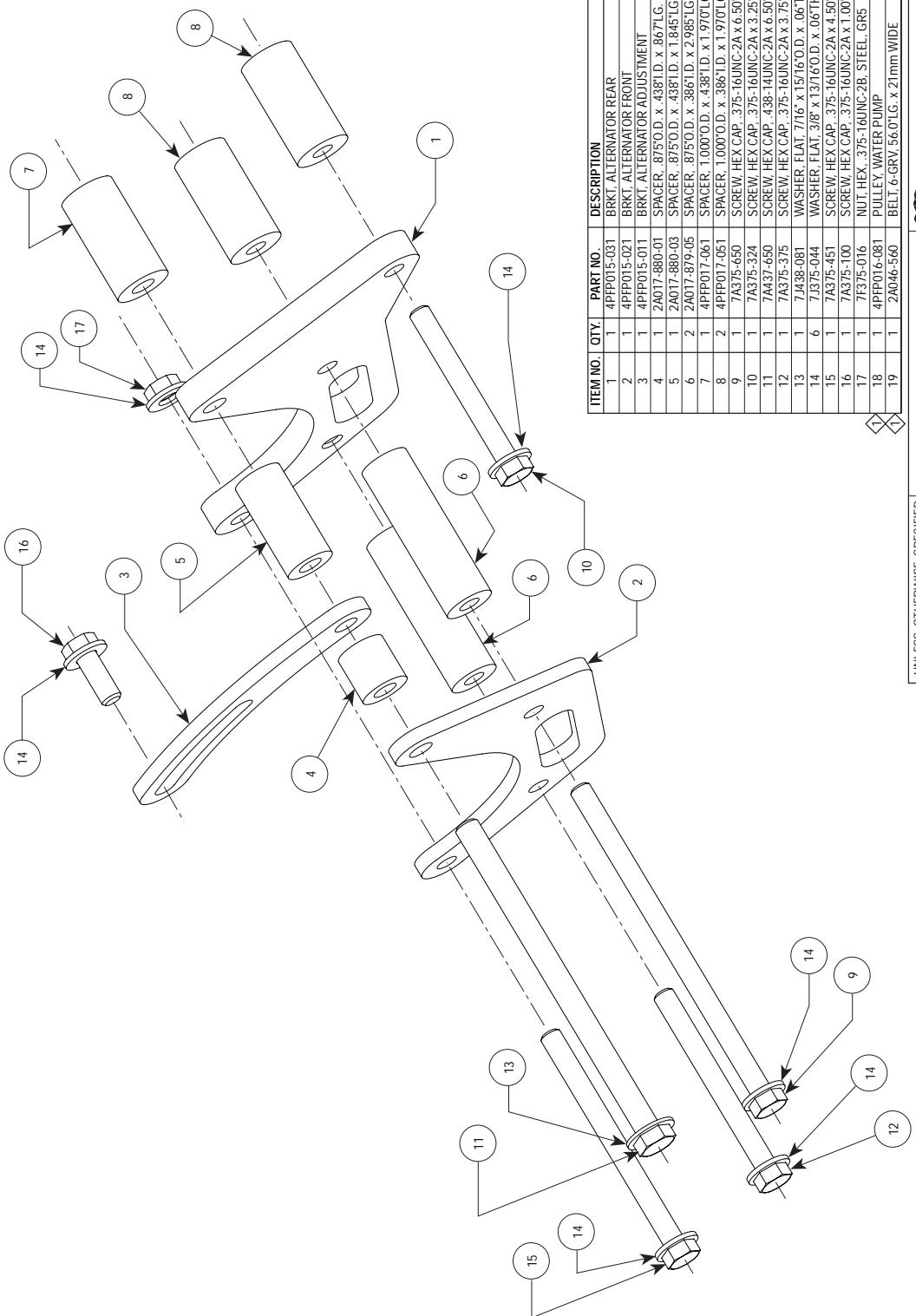


ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	4FA018-029	PULLEY, CRANK
2	4	7A375-158	SCREW, SOC HD., 375-16 JNC 2A X 1.50" LG., STEEL, GR8
3	4	7K375-040	WASHER, FLAT, 3/8", STEEL
4	1	2A048-560	BELT, 8-GRV MICRO-V 56.01" G x 28mm WIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: .XX±.01 DECIMALS: .XXX±.005 FRACTIONS: ±1/16 ANGLES: ±1°		CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE APPROVALS _____ DATE _____		1300 BEACON PLACE OXNARD, CA 93033 TEL: (805) 604-1336 FAX: (805) 604-1337	
MATERIAL	SEE PARTS LIST	DRAWN	AP	ASY, CRANK PULLEY	
R&D		ENGINEERING	G. COMPTON	4/12/00	
		R&D	GRE	4/12/00	5.0 - 5.8L RENEGADE
FINISH	NONE	APPR.	B. WYMAN	4/12/00	SIZE: C DWG. NO.: 1015612 REV A WEIGHT: 2.2 LBS SCALE: 1:1 DO NOT SCALE DRAWING SHEET 1 OF 1

NOTES: UNLESS OTHERWISE SPECIFIED  
1. THIS PART TO BE SHIPPED SEPARATELY

D. 1015612 ASY, CRANK PULLEY



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	4PP015-031	BKKT, ALTERNATOR REAR
2	1	4PP015-021	BKKT, ALTERNATOR FRONT
3	1	4PP015-011	BKKT, ALTERNATOR ADJUSTMENT
4	1	2A017-880-01	SPACER, 8750D x 4381D x 8671L
5	1	2A017-880-03	SPACER, 8750D x 4381D x 18451L
6	2	2A017-879-05	SPACER, 8750D x 3861D x 23851L
7	1	4PP017-061	SPACER, 10000D x 3831D x 19701L
8	2	4PP017-051	SPACER, 10000D x 3861D x 19701L
9	1	7A375-650	SCREW, HEX CAP, 375-16UNC-2A x 6.50LG., STEEL, GR5
10	1	JA375-324	SCREW, HEX CAP, 375-16UNC-2A x 3.25LG., STEEL, GR5
11	1	TA437-650	SCREW, HEX CAP, 375-16UNC-2A x 6.50LG., STEEL, GR5
12	1	7A375-375	SCREW, HEX CAP, 375-16UNC-2A x 3.75LG., STEEL, GR5
13	1	7A438-081	WASHER, FLAT, 7/16 x 15/16 O.D. x .067THK, STEEL, GR5
14	6	7J375-044	WASHER, FLAT, 3/8 x 13/16 O.D. x .067THK, STEEL, GR5
15	1	7A375-451	SCREW, HEX CAP, 375-16UNC-2A x 4.50LG., STEEL, GR5
16	1	7A375-100	SCREW, HEX CAP, 375-16UNC-2A x 1.00LG., STEEL, GR5
17	1	7F375-016	NUT, HEX, 375-16UNC-2B, STEEL, GR5
18	1	4PP016-081	PULLEY, WATER PUMP
19	1	2A046-560	BELT, 6-GRV, 56.01LG x 21mm WIDE

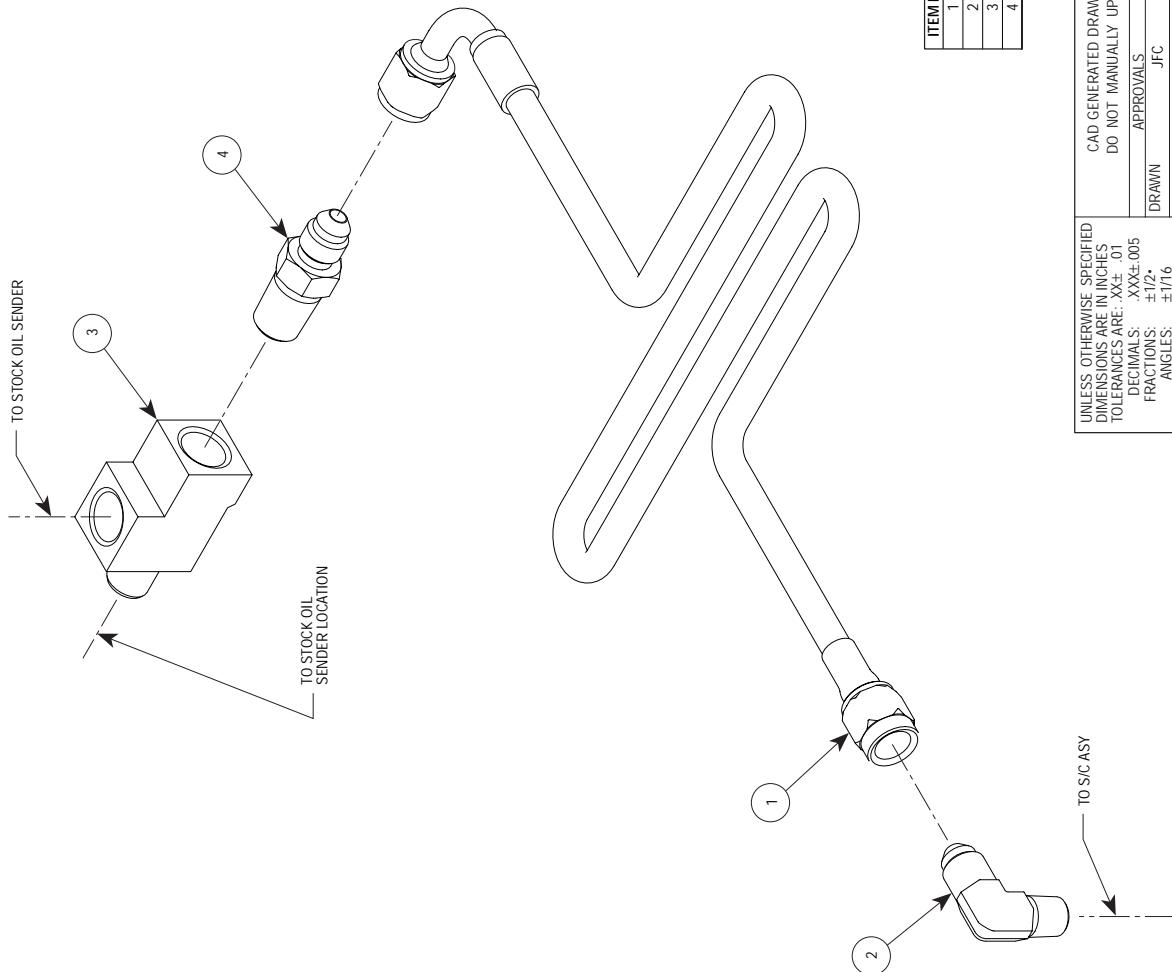
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APPROVALS	DATE	DRAWN	G. COMPTON
MATERIAL	4/10/00	ENGINEERING	G. COMPTON
SEE PARTS LIST	4/10/00	R&D	GRF
FINISH	None	APPR.	B. WYMAN
	WEIGHT	SIZE:	D
	3.5 LBS	DWG. NO.:	1016040
		SCALE:	1:2   DO NOT SCALE DRAWING   SHEET 1 OF 1
			REV A

NOTES:  
1. SHIP THESE ITEMS LOOSE.



RACE KIT, RENEGADE

ASY, ALTERNATOR



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	7U250-090-240	HOSE, OIL, AN4 x AN4 x 24.0 LG.
2	1	7P125-004	FIG. EL BOW, AN4 x 1/8" NPT
3	1	7P250-034	FIG. STREET TEE, 1/4" NPT
4	1	7P250-031	FIG. NIPPLE, AN4 x 1/4" NPT

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCES ARE: .XX±.01  
DECIMALS: .XXX±.005  
FRACTIONS: ±1/2.  
ANGLES: ±1/16

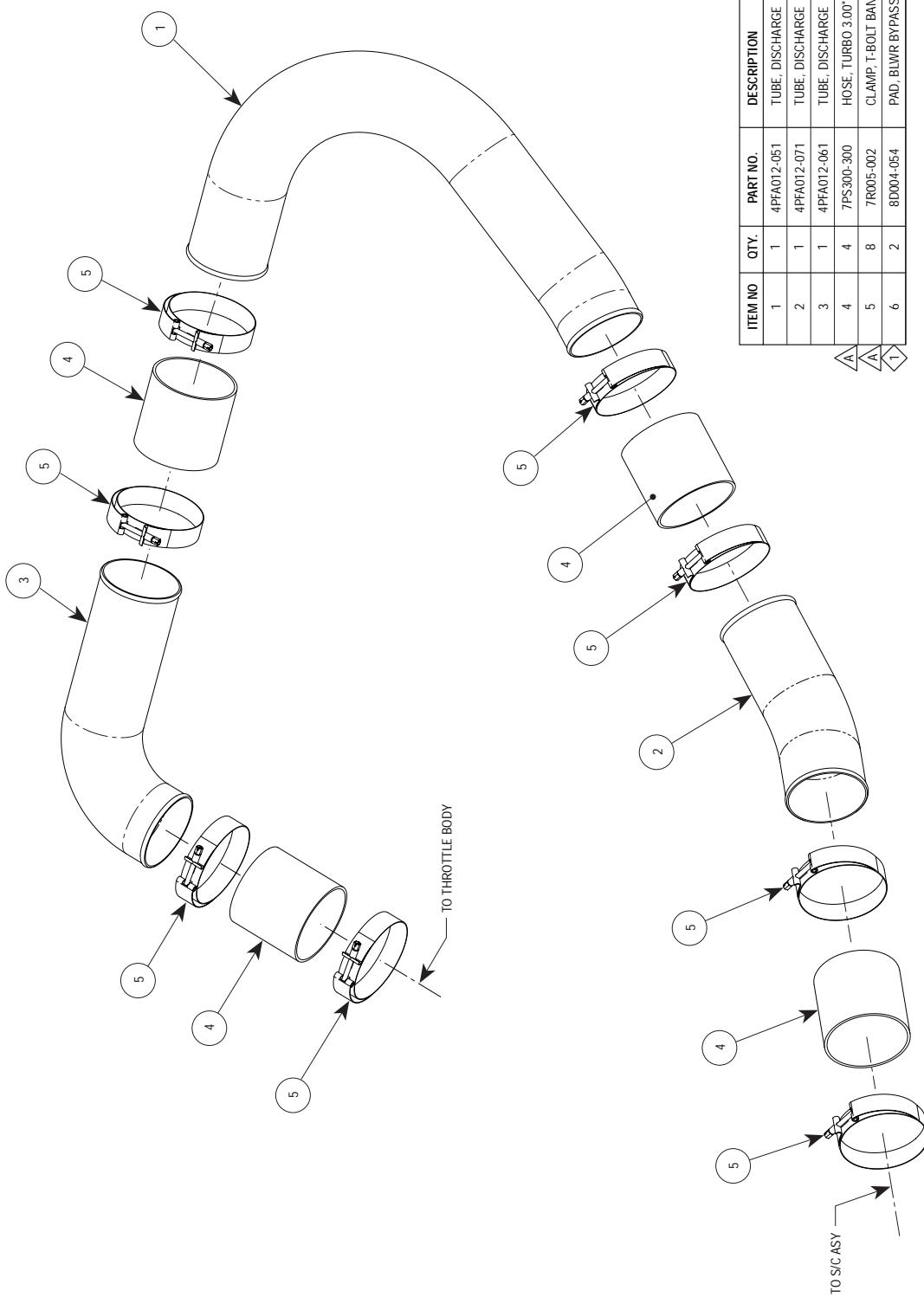
**SUPERCHARGERS**  
1300 BEACON PLACE OXNARD, CA 93033  
TEL: (805) 604-1336 FAX: (805) 604-1337

MATERIAL	SEE PARTS LIST	DRAWN	APPROVALS	DATE
ENGINEERING	.....	.....	.....	6/15/99
R&D	.....	.....	.....	.....
APPR.	.....	.....	.....	.....

ASY/OIL SUPPLY

SIZE: C      DMG. NO.: 1019329      REV C  
SCALE: 1:1      DO NOT SCALE DRAWING      SHEET 1 OF 1

F. 1019329 ASY, OIL SUPPLY HOSE



UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCES ARE: .XX±.01  
DECIMALS: .XXXX±.005  
FRACTIONS: ±1/16,  
ANGLES: ±1°/16

1300 BEACON PLACE OXNARD, CA 93033  
TEL: (805) 604-1336 FAX: (805) 604-1337

**RACE KIT, RENEGADE**

ASY, DISCHARGE TUBE

TUBE, DISCHARGE

TUBE, DISCHARGE

TUBE, DISCHARGE

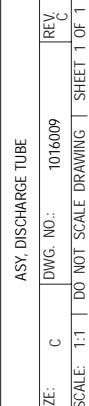
HOSE, TURBO 3.00" x 3.00" LG

CLAMP, T-BOLT BAND

PAD, BLWR BYPASS

ITEM NO	QTY.	PART NO	DESCRIPTION
1	1	4PF012-051	TUBE, DISCHARGE
2	1	4PF012-071	TUBE, DISCHARGE
3	1	4PF012-061	TUBE, DISCHARGE
4	4	7PS300-300	HOSE, TURBO 3.00" x 3.00" LG
5	8	7R005-002	CLAMP, T-BOLT BAND
1	2	8D004-054	PAD, BLWR BYPASS

- NOTES: UNLESS OTHERWISE SPECIFIED  
1. TO BE SHIPPED SEPERATELY





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