

TECHNICAL BULLETIN

TB NO. 1042

Rev. 0

SUBJECT: Fresh-Air Waste-gate Conversions for Superior Cleanburn Engines

PROBLEM: Customers continue to experience problems with the existing exhaust waste-gate valves on Superior cleanburn engines. The problems are directly related to the constant exposure to the high exhaust temperatures ranging from 900°F to 1150°F, dependent on RPM and Load.

EnDyn developed the original cleanburn conversion kits for the existing Superior turbocharged engines during 1988. Since the engines were equipped with water-cooled exhaust manifolds, it was necessary to install a fresh-air waste-gate upstream of the intercoolers to control air/fuel ratios and exhaust emissions. The excess air was vented into the exhaust piping downstream of the turbocharger. Since the waste-gates are only exposed to fresh-air at temperatures of 150 to 200 degrees, we experience excellent reliability and longer life of the waste-gate valves and internal components. Based on numerous request, EnDyn has developed conversion kits for both the "inline" and "VEE" series Superior engines. These are proven systems which can be utilized with your existing air/fuel controls.

For layout and the required B.O.M., refer to EnDyn drawings P-033-023-Y-3, P-033-023-Y-4 or P-033-023-V-5.

If you need additional copies, have any questions or require additional information, please contact **EnDyn's** Technical Service Department or your local **PowerParts**[®] Distributor or **EnDyn** Field Sales Representative.

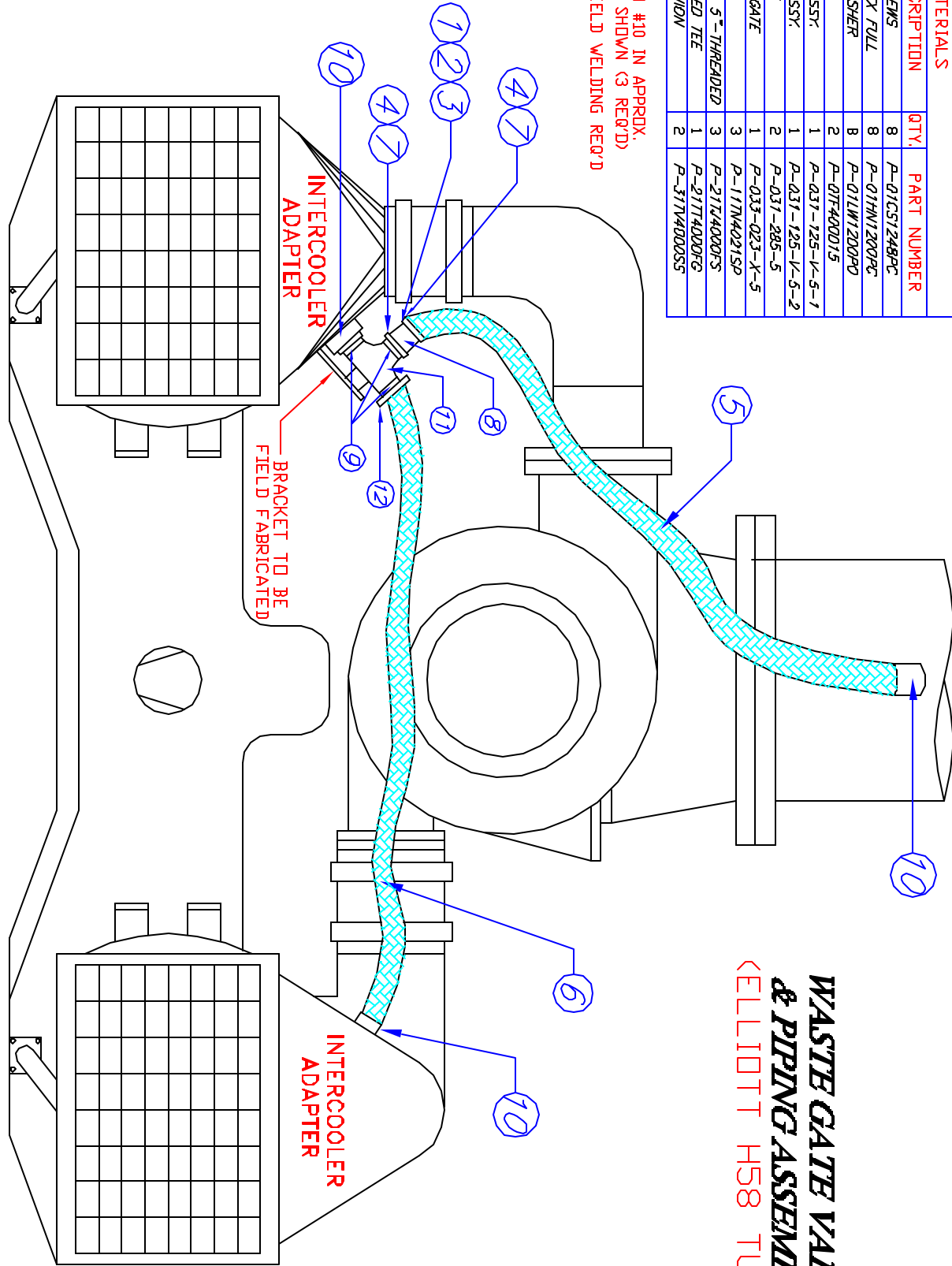
2-10-05

TECHNICAL SERVICE DEPT.
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Alice, Texas 78332 USA
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800.723.6396
fax 361.668.3906
www.endyn.com

BILL OF MATERIALS

ITEM	DESCRIPTION	QTY.	PART NUMBER
1.	CAPSCREWS	8	P-01CG1248PC
2.	NUT-HEX FULL	8	P-01HW1200PC
3.	LOCKWASHER	8	P-01LW1200PC
4.	FLANGE	2	P-01FA40015
5.	HOSE ASSY.	1	P-031-125-V-5-1
6.	HOSE ASSY.	1	P-031-125-V-5-2
7.	GASKET	2	P-033-023-X-5
8.	WASTE GATE	1	P-11NA4021SP
9.	WIPPLE	3	P-217A400FS
10.	COLLAR 5"-THREADED	3	P-217A400FS
11.	THREADED TEE	1	P-217A400FG
12.	HEX UNION	2	P-317A400SS

NOTE:
 - WELD ITEM #10 IN APPROX. POSITIONS SHOWN (3 REQ'D)
 - MINIMAL FIELD WELDING REQ'D



**WASTE GATE VALVE
 & PIPING ASSEMBLY
 (ELLIOTT H58 TURBO)**

ENDYn
The Power to
 Run Smarter
 Plants

300 WEST FIRST + ALICE TEXAS 78132 USA

TITLE
WASTE GATE & PIPING KIT

MATERIAL
SEE B.O.M.

APPROVED BY
JC

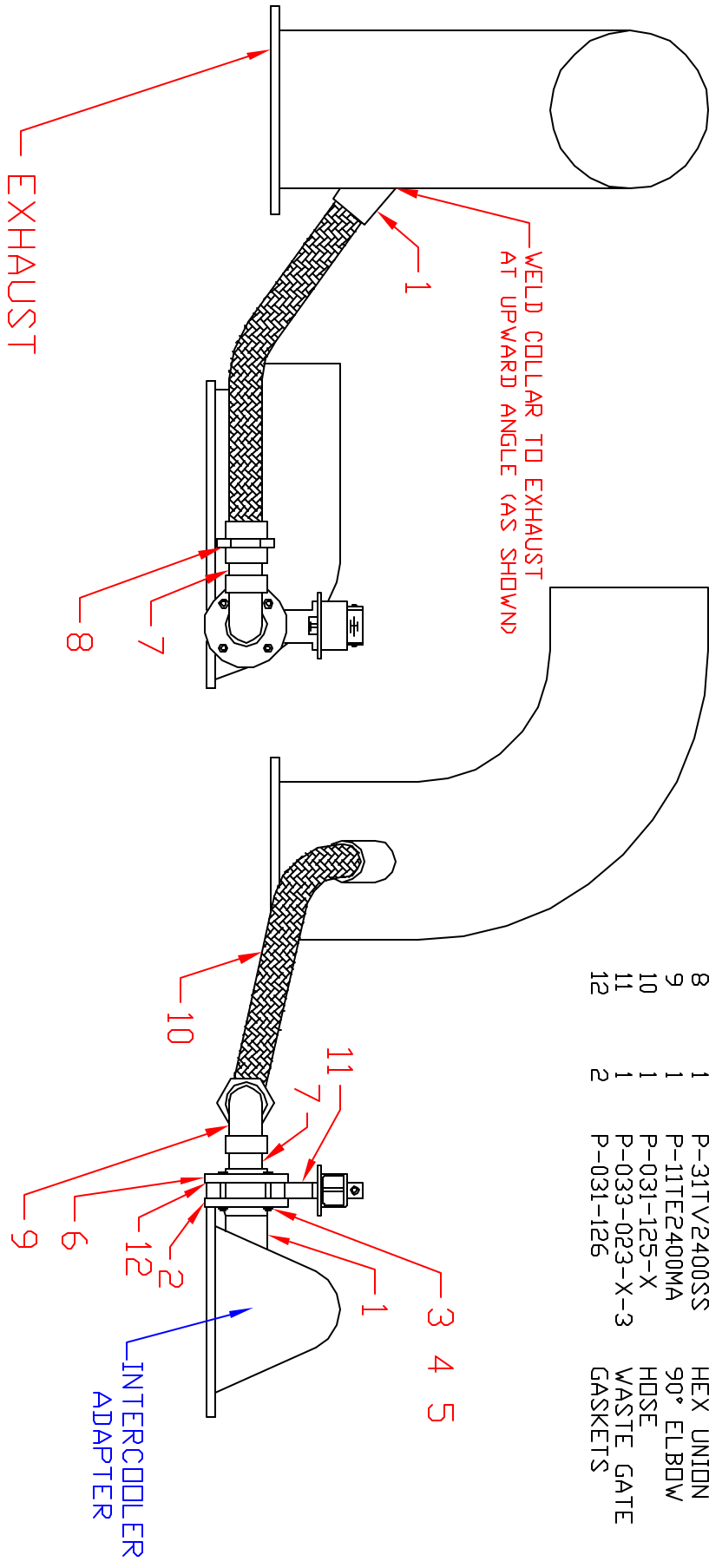
DATE
4/24/00

DRAWN BY
JC

DRAWING NUMBER
P-033-023-V-5

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ITEM	QTY	P/N	DESCRIPTION
1	2	P-21TJ2400FS	COLLARS
2	1	P-08WF2400IS	FLANGE
3	4	P-01CS1236PC	CAPSCREWS
4	4	P-01LW1000PD	LOCKWASHERS
5	4	P-01HN1000PC	HEX NUTS
6	1	P-01TF2400IS	FLANGE
7	2	P-11TN2421SP	NIPPLES (CLOSE)
8	1	P-31TV2400SS	HEX UNION
9	1	P-11TE2400MA	90° ELBDW
10	1	P-031-125-X	HOSE
11	1	P-033-023-X-3	WASTE GATE
12	2	P-031-126	GASKETS



WELD COLLAR TO EXHAUST
AT UPWARD ANGLE (AS SHOWN)

EXHAUST

INTERCOOLER
ADAPTER

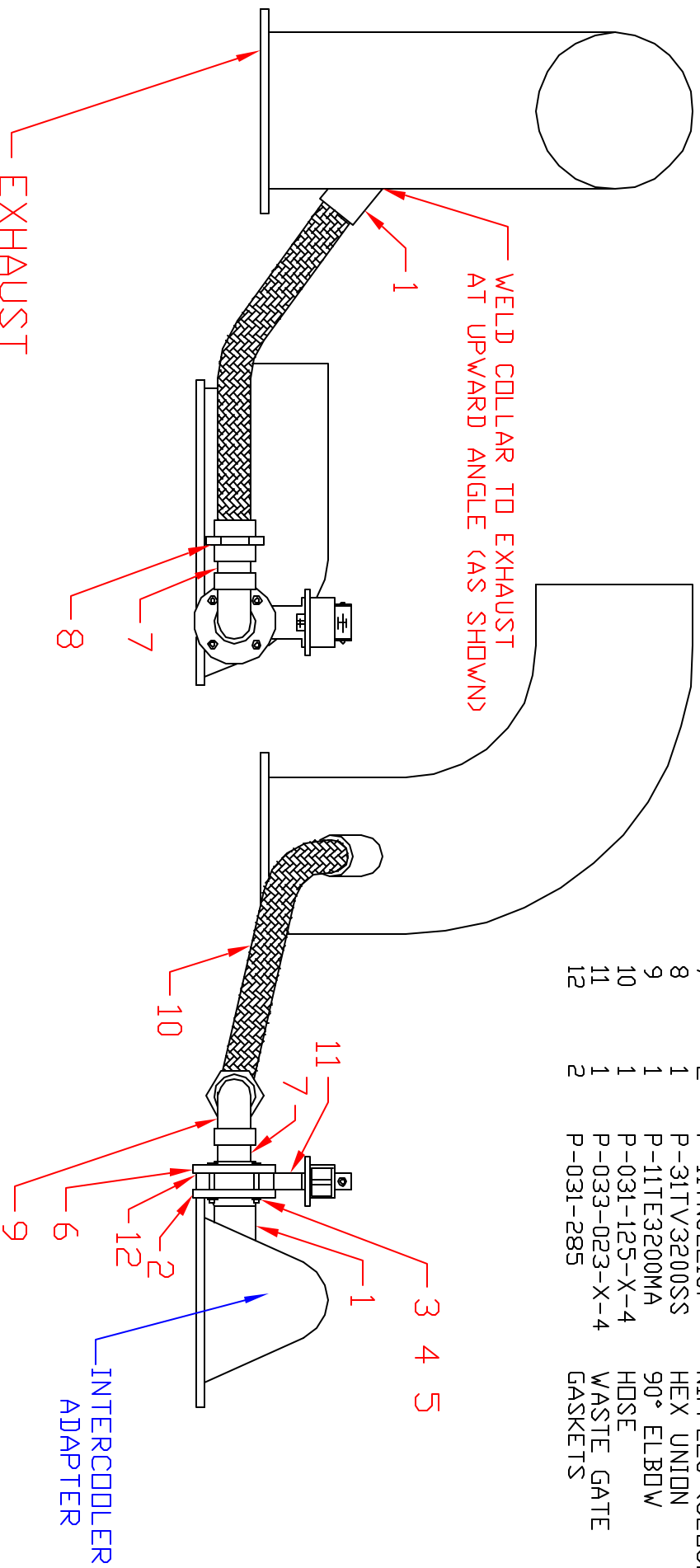
- NOTES:
- WELD ITEM #1 IN APPROX. POSITIONS SHOWN (2 REQ'D)
 - WELD #2 TO #1
 - MINIMAL FIELD WELDING REQ'D

REV.4

TITLE WASTE GATE & PIPING KIT	
MATERIAL SEE B.O.M.	
APPROVED BY JC	DATE 4/24/00
DRAWING NUMBER P-033-023-Y-3	

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ITEM	QTY	P/N	DESCRIPTION
1	2	P-21TJ3200FS	COLLARS
2	1	P-08WF320015	FLANGE
3	4	P-01CS1236PC	CAPSCREWS
4	4	P-01LW1000PD	LOCKWASHERS
5	4	P-01HN1000PC	HEX NUTS
6	1	P-01TF320015	FLANGE
7	2	P-11TN3221SP	NIPPLES (CLOSE)
8	1	P-31TV3200SS	HEX UNION
9	1	P-11TE3200MA	90° ELBOW
10	1	P-031-125-X-4	HOSE
11	1	P-033-023-X-4	WASTE GATE
12	2	P-031-285	GASKETS



- NOTES:
- WELD ITEM #1 IN APPROX. POSITIONS SHOWN (2 REQ'D)
 - WELD #2 TO #1
 - MINIMAL FIELD WELDING REQ'D

REV.2

The Above
Is Not To Be
Used In Any Way
That May
Harm
The
Environment

Endyn

300 WEST FIRST + ALICE TEXAS 76132 USA

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DRAWN BY: JC

APPROVED BY: JC

DATE: 4/24/00

MATERIAL: SEE B.O.M.

DRAWING NUMBER: P-033-023-Y-4