

SPECIAL PACKAGING INSTRUCTION

*Form Approved -SS MB
OMB No. 0704-0188*

Public reporting burden for this collection of information is estimated to average 30 days per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please do not return your form to either of these addresses.

1. PART OR DRAWING NO. (CAGE) NOMENCLATURE 12505857-001 (19207) ENGINE, DRESSED, W/CONTAINER			2. CODE INDENT 19207		3. SPI NO. AK15762885	
4. NATIONAL STOCK NO. 2815-01-576-2885			5. DATE OF DRAWING 10-31-09		6. REVISION A	
7. QUP 1 EA	8. ICQ NONE	9. UNIT PACK WT. (LB) 2630.0	10. UNIT PACK CU (CU. FT.) 84.309		11. UNIT PACK SIZE (INCHES) 60.6 X 50.4 X 47.7	

	18. STEPS	19. REQD	20. DESCRIPTION
12. MILITARY PRESERVATION METHOD 55	1C		PRESERVATION: SEE NOTES FOR ENGINE PROCESSING DETAILS.
13. CLEANING MIL-STD-2073-1D, PROCEDURE 1	2C	1	PART NUMBER: 1R0751 (CAGE CODE 11083) FUEL FILTER.
14. DRYING MIL-STD-2073-1D	3C		CUSHIONING: PPP-C-1797, TYPE I, 1/8" THICK, SIZE(S) 12 X 9 QTY 1, 12 X 6 QTY 1, 6 X 6 QTY 1, 18 X 10 QTY 1, 8 X 6 QTY 1.
15. PACKING	3C	1	CONTAINER: ASTM 5118,, STYLE RSC, TYPE CF, VARIETY SW, GRADE V3c, CLASS WR, SIZE 6-1/4 X 5 X 12.
a. LEVEL A MIL-STD-2073-1D AND NOTE F	4D		DESICCANT: MIL-D-3464.
b. LEVEL B NOT APPLICABLE	5G	1	TIEDOWN STRAP: MS3367-3-0
16. MARKING MIL-STD-129 AND NOTE E	6G		CONTAINER CLOSURE: SEE NOTES

17. NOTES/DRAWING

A. QUALITY ASSURANCE PROVISIONS:

1. INSPECT THE PRESERVATION AND UNIT PACK IN ACCORDANCE WITH MIL-STD-2073-1.
2. INSPECT THE CONTAINER IN ACCORDANCE WITH COMMERCIAL ITEM DESCRIPTION (CID) A-A-52462, INCLUDING THE FIRST ARTICLE INSPECTION REQUIREMENTS.

B. 12414398-011, ENGINE, DRESSED WITH CONTAINER, CONSISTS OF THE FOLLOWING:

1. ENGINE, PART NUMBER, 12505605-001
2. CONTAINER, PART NUMBER, 12414397

C. PRESERVATION:

1. DRAIN ALL COOLANT FROM ENGINE. SEAL COOLING SYSTEM BY INSTALLING COVER "F" AND CAP "I" ON AND REGULATOR OUTLET AS SPECIFIED IN CHART ON PAGE 2 AND AS SHOWN IN FIGURE 1 ON PAGE 4. SECURE COVER "F" WITH CLAMP "N" AS SPECIFIED IN CHART ON PAGE 2 AND AS SHOWN IN FIGURE 1 ON PAGE 4.
- INSTALL COVER "H" AS SPECIFIED IN CHART ON PAGE 2 AND AS SHOWN IN FIGURE 3 ON PAGE 5.
- INSTALL COVERS "E" (2 EACH) ON OPEN PIPES AND SECURE WITH CLAMPS "P" AS SPECIFIED IN CHART ON PAGE 2 AND AS SHOWN IN FIGURE 1 ON PAGE 4. SECURE LOOSE HOSE ASSEMBLY TO PIPE AND OIL FILL TUBE WITH MS3367-3-0 AS SHOWN IN FIGURE 1 ON PAGE 4.
2. INSTALL THE CATERPILLAR COVERS "A", "B", "C", AND "D" ON TURBOCHARGER AND INTAKE ELBOW AS SPECIFIED IN CHART ON PAGE 2 AND AS SHOWN IN FIGURE 1 ON PAGE 4 AND FIGURE 3 ON PAGE 5. SECURE COVERS "A", "B", "C" AND "D" USING CLAMPS "M", AND "N" TO FORM AN AIR TIGHT SEAL AS SPECIFIED IN CHART ON PAGE 2 AND AS SHOWN IN FIGURE 1 ON PAGE 4 AND FIGURE 3 ON PAGE 5.
- INSTALL CAP "K" ON TURBOCHARGER FITTING AS SPECIFIED IN CHART ON PAGE 2 AND AS SHOWN IN FIGURE 3 ON PAGE 5.
- INSTALL CAP "J" (2 EACH) ON FITTINGS AS SPECIFIED IN CHART ON PAGE 2 AND AS SHOWN IN AS SHOWN IN FIGURE 1 ON PAGE 4 AND FIGURE 3 ON PAGE 5.
- SEAL HOSES WITH ASTM D5486, TYPE I, CLASS 1 TAPE AS SHOWN IN FIGURE 1 ON PAGE 4.
- INSTALL CAP "L" ON ELBOW AS SPECIFIED IN CHART ON PAGE 2 AND AS SHOWN IN FIGURE 1 AND FIGURE 2 ON PAGE 4.
- SEAL ELBOW WITH ASTM D5486, TYPE I, CLASS 1 TAPE AS SHOWN IN FIGURE 2 ON PAGE 4.

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(NOTE "B" CONTINUED)

DRAIN OIL FROM THE CRANKCASE. INSTALL TWO QUARTS OF A MIXTURE OF 50% VCI OIL CONFORMING TO MIL-PRF-46002 AND 50% ENGINE OIL IN CRANKCASE.

INSTALL PLUG "G" IN THE OIL FILL TUBE AS SPECIFIED IN CHART ON PAGE 2 AND AS SHOWN IN FIGURE 1 ON PAGE 4.

NOTE: ATTACH TAG TO ENGINE INDICATING, "DRAIN OIL FROM CRANKCASE AND FILL CRANKCASE WITH CORRECT ENGINE OIL BEFORE STARTING ENGINE", AND DD FORM 1397 OR EQUIVALENT ANNOTATED.

WRAP ALL CANNON PLUGS ON ELECTRICAL PIG TAILS WITH WRAP CONFORMING TO SPECIFICATION MIL B-22191, TYPE 2, CLASS 2, SIZE 2 X 4 AND SECURE WITH ASTM D5486, TYPE I, CLASS 1 TAPE.

3. ENGINE PRESERVATION

STEP 1: REMOVE PLUG AND INSTALL A FUEL INLET LINE USING APPROPRIATE FITTINGS TO THE SECONDARY FUEL FILTER AT THE POINT SHOWN IN FIGURE 1 ON PAGE 4.

STEP 2: REMOVE CAP "J" FROM FUEL RETURN FITTING SHOWN IN FIGURE 3 ON PAGE 5. A TRANSPARENT LINE SHALL BE CONNECTED TO THE FUEL RETURN PORT USING APPROPRIATE FITTINGS. THE OTHER END OF THE TRANSPARENT LINE SHALL BE INSERTED INTO A RECOVERY CONTAINER TO COLLECT THE FUEL/PRESERVATIVE. CONNECT AN ELECTRIC OR PNEUMATIC PUMP WITH A CAPACITY OF NO MORE THAN 45 GPH, AND WITH A MINIMUM OF 10 PSI NOT TO EXCEED 25 PSI TO THE FUEL INTAKE LINE USING LINES AND FITTINGS. COMPLETELY PURGE FUEL SYSTEM WITH PRESERVATIVE CONFORMING TO MIL-PRF-21260, GRADE 10 OR MIL-PRF-2104 GRADE 10. THE SYSTEM SHOULD BE PURGED UNTIL CLEAN PRESERVATIVE IS OBSERVED FLOWING THROUGH CLEAR RETURN LINE.

NOTE: 3 QUARTS OF FLUID SHOULD BE PURGED FROM FUEL SYSTEM.

STEP 3: REMOVE FUEL INLET LINE AND FITTINGS INSTALLED IN STEP 1. REPLACE THE PLUG REMOVED IN STEP 1.

STEP 4: REMOVE RETURN LINE AND FITTINGS INSTALLED IN STEP 2. INSTALL CAP "J" REMOVED IN STEP 2.

STEP 5: REMOVE SECONDARY FUEL FILTER AND REPLACE WITH A NEW FILTER PART NUMBER 1R0751 (CAGE CODE 11083) AS SPECIFIED IN BLOCK 18 ON PAGE 1 AND AS SHOWN IN FIGURE 1 ON PAGE 4.

NOTE: A TAG SHOULD BE ATTACHED TO ENGINE INDICATING, "PURGE FUEL SYSTEM WITH DIESEL FUEL BEFORE STARTING ENGINE", AND DD FORM 1397 OR EQUIVALENT ANNOTATED.

CAP or PLUG NUMBER	CATERPILLAR PART NUMBER	QTY	CLAMP NUMBER	CLAMP REQUIRED SAE J 1508, TYPE F SIZE NUMBER	QTY	COMMENTS
A	9X3998	1	M	72	1	FOR EXHAUST, TURBOCHARGER.
B	9N6379	1	M	72	1	FOR INTAKE, TURBOCHARGER.
C	7N4271	1	N	48	1	FOR OUTLET, TURBOCHARGER.
D	7N4271	1	N	48	1	FOR INTAKE ELBOW.
E	9N6378	2	P	16	2	FOR OPEN TUBES.
F	9N6377	1	N	48	1	FOR REG. OUTLETS.
G	9L8439	1		(NO CLAMP REQUIRED)		PLUG FOR OIL FILL TUBE (NO CLAMP IS REQUIRED).
H	250-16	2		(NO CLAMP REQUIRED)		(CAGE CODE 99017) FOR OPEN TUBES.
I	250-16	2		(NO CLAMP REQUIRED)		(CAGE CODE 99017) FOR OPEN TUBE.
ADAPTER NUMBER	AEROQUIP PART NUMBER					COMMENTS
J	210292-6	3				FOR OPEN JIC FITTINGS.
K	210292-4	1				FOR OPEN JIC FITTING ON TURBOCHARGER.
L	210292-10	2				FOR OPEN JIC FITTING ON AIR COMPRESSOR.

NOTE "O" IS NOT USED IN THIS CHART.

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(NOTE "B" CONTINUED)

4. APPLY A HEAVY COATING OF GREASE CONFORMING TO MIL-PRF-10924 TO ALL NON-PAINTED SURFACES AND THE REAR FACE OF THE CRANKSHAFT. ALL UNUSED TAPPED HOLES, THAT ARE NOT PAINTED, MUST BE PROTECTED WITH PLUGS CONFORMING TO NAS 847 (MIL-C-5501). **NOTE: MANUFACTURERS PLUGS ARE ACCEPTABLE.**
5. FLUSH AND SLUSH AIR COMPRESSOR AND POWER STEERING PUMP WITH VV-L-800. INSTALL CAP "L" ON AIR COMPRESSOR AS SPECIFIED IN CHART ON PAGE 2 AND AS SHOWN IN SKETCH ON PAGE 4.
NOTE: MANUFACTURE'S TEST FLUID AND CAPS ARE ACCEPTABLE.
6. THE SERPENTINE BELT TENSIONER SHALL NOT BE RELEASED. TENSION SHALL REMAIN ON THE SERPENTINE BELT.
7. **CONSOLIDATION OF FOLLOWING LOOSE PARTS.**

PART NUMBER	DESCRIPTION	QTY	CUSHIONING PPP-C-1797, TYPE I, 1/8" THICK SIZE	CUSHIONING QTY
12414553-012	HOSE	1	12 X 9	1
12414507-001	CLAMP	2	12 X 6	1 (PLACE BOTH CLAMPS TOGETHER)
12421183-007	CLAMP	1	6 X 6	1
12423642	TUBE	1	18 X 10	1
12414555-001	TUBING	1	8 X 6	1

- a. IDENTIFY EACH PART IN ACCORDANCE WITH MIL-STD-129.
- b. **CUSHIONING:** WRAP EACH PART AS SPECIFIED IN CHART ABOVE. SECURE WRAP WITH TAPE.
- c. **CONTAINER:** ASTM 5118,, STYLE RSC, TYPE CF, VARIETY SW, GRADE V3c, CLASS WR, SIZE 6-1/4 X 5 X 12.
- d. **CLOSURE:** ASTM D5486, TYPE I, CLASS 1 TAPE.
- e. **SPECIAL MARKING:** MARK CONSOLIDATION CONTAINER AS FOLLOWS:

"LOOSE PARTS CONTAINER"

"Refer to IETM EM0195, 2003 for installation procedures"

- f. PLACE CONTAINER INSIDE OF FRAME RAIL AND SECURE WITH ASTM D5486, TYPE I, CLASS 1 TAPE AS SHOWN IN FIGURE 3 ON PAGE 5.

8. A PROCESSING RECORD, DD FORM 1397 OR EQUIVALENT, SHALL BE COMPLETED AND AFFIXED IN A CONSPICUOUS LOCATION ON THE ENGINE.

D. PLACE 80 UNITS OF DESICCANT INTO CONTAINER DESICCANT BASKET.

E. SPECIAL MARKING:

1. ENGINE SERIAL NUMBER SHALL BE STENCILLED ON THE CONTAINER IN ACCORDANCE WITH MIL-STD-129.

F. THE UNIT CONTAINER IS THE SHIPPING AND STORAGE CONTAINER.

SPARE DRESSED ENGINE

PART NUMBER: 12505605-001
WEIGHT: 1673.0 LBS.

REUSABLE CONTAINER

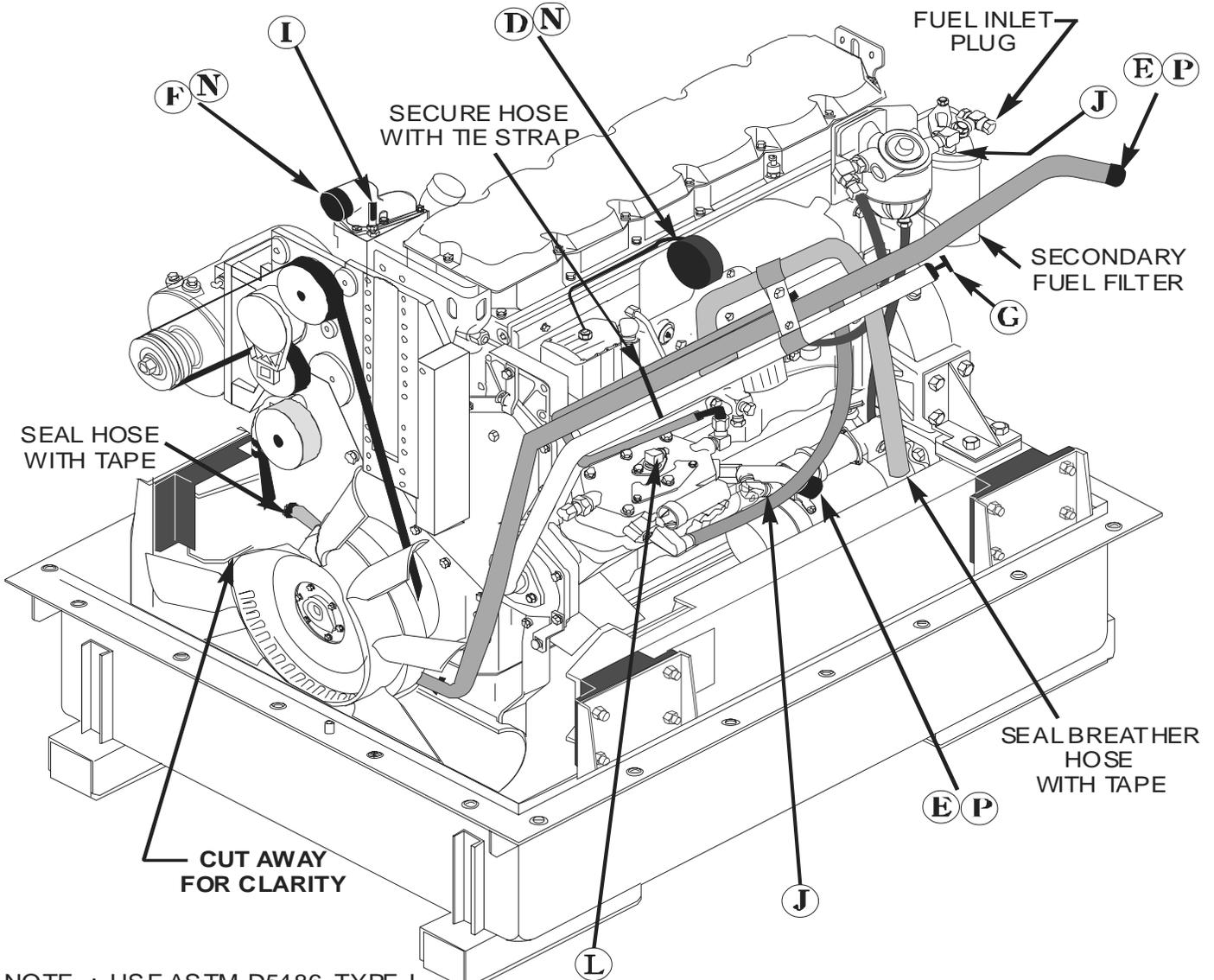
PART NUMBER: 12414397
WEIGHT: 957.0 LBS.

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NOTE : USE ASTM D5486, TYPE I, CLASS 1 TAPE WHERE TAPE IS DESIGNATED

FIGURE 1

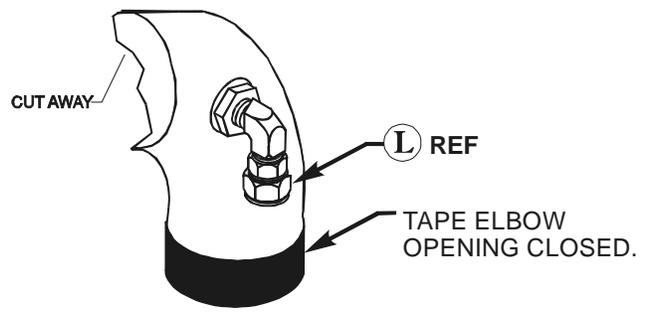


FIGURE 2

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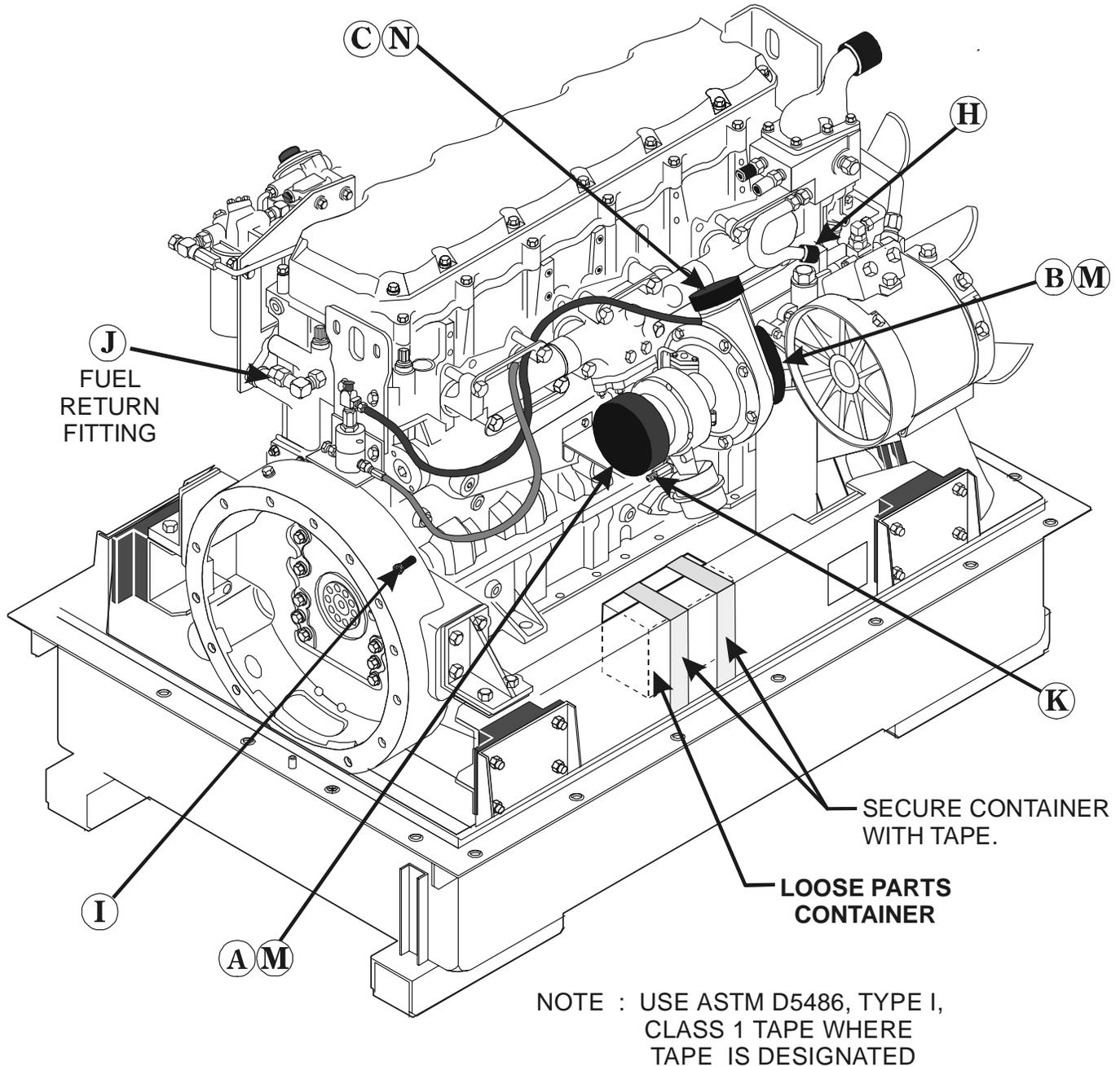


FIGURE 3