



CERTIFICATE NUMBER	23-2437189-PDA
EFFECTIVE DATE	31-Jul-2023
EXPIRY DATE	30-Jul-2028
ABS TECHNICAL OFFICE	Hamburg Engineering Department

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

HKS-CZ, S.R.O.

located at

MLEKOJEDSKA 1994 / 7, , CZ 412 01 LITOMERICE, Czech Republic

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Expansion Joints
Model: AN, AM, AP, AF, ANX, APX, AFX.
Endorsements:
Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 30/Jul/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

Efstratios Maliatsos
Efstratios Maliatsos, Engineer Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

HKS-CZ, S.R.O.

MLEKOJEDSKA 1994 / 7

CZ 412 01 LITOMERICE

Czech Republic

Telephone: 420 416 7152-18

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Tier: 2 - PDA Issued

Product: Expansion Joints
Model: AN, AM, AP, AF, ANX, APX, AFX.
Endorsements:

Intended Service:
Metallic expansion joints for on-board use in exhaust piping systems.

Description:
Stainless steel multiple layer axial expansion joints, made of material grades: 1.4541 for inner sleeve and metal bellow and S235JR for flanges.
Sizes for all types AN, AM, AP, AF, ANX, APX, AFX: DN 100 to DN 2400.
Types AN, AP, AF also having an inner sleeve result to types ANX, APX, AFX.

Rating:
Working pressure/ temperature: 0.5 bar/ 550°C.
Test pressure: 0.75 bar.
Axial/ radial movement and spring rate, as per manufacturer's specification.

Service Restriction:
Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:
- The manufacturer has provided a declaration of, or the lack of Asbestos in this product.
- The installation of the expansion joints is to be carried out by duly qualified personnel in accordance with the manufacturer's recommended and established procedures to the satisfaction of a Bureau's Surveyor.
- Expansion joints are to bear manufacturer's trademark, pressure/temperature rating and material identification. Such markings may be cast or forged integral with, stamped on, or securely affixed by nameplate on the expansion joint, and are to serve as a permanent means of identification of the expansion joint throughout its service life and verifiable against the manufacturer's catalogue or similar documentation.

Notes/Drawing/Documentation:
See attached files

Terms of Validity:
This Product Design Assessment (PDA) Certificate remains valid until 30/Jul/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

STANDARDS

HKS-CZ, S.R.O.

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ABS Rules:

2023 Rules for Conditions of Classification (Ships): 1-1-4/7.7, 1-1-A3, 1-1-A4

2023 Rules for Building and Classing Marine Vessels: 4-6-1/Table 1, 4-6-2/5.5.4, 4-6-2/5.8, 4-6-2/5.15, 4-6-2/5.17

2023 Rules for Conditions of Classification (Offshore Units and Structures): 1-1-4/9.7, 1-1-A2, 1-1-A3

2023 Rules for Building and Classing Mobile Offshore Units: 4-2-1/11.9

National:

DIN 86044 November 2018 (Flanges for Exhaust Gas Lines on Ships)

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

EJMA Standard Edition 9, 2008.

23- 2437189-PDA

Attached to 23- 2437189-PDA

Covering HKS-CZ, S.R.O. – Expansion Joints

Models: AN, AM, AP, AF, ANX, APX, AFX

Issuance Date: 31-Jul-2023

Expiration Date: 30-Jul-2028

Drawing List

Engineering Office:	Hamburg Engineering Department	
Submitter:	HKS-CZ, S.R.O. (420421)	
Drawing No	Revision No	Drawing Title
Declaration of Conformity_HKSCZ	-	Declaration of Conformity_HKSCZ
Application of revalidation of 18-HG1759462-PDA	-	Application of revalidation of 18-HG1759462-PDA

Drawing list approved under T1759462

Drawing No	Revision No	Drawing Title
LetterAccOwnership_HKS_GmbH	-	LetterAccOwnership_HKS_GmbH
RfPDA_HKS-CZ	-	RfPDA_HKS-CZ
Correspondence	-	Correspondence
AF0100 081517-72Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0100 081517-72
AF0150 081517-74Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0150 081517-74
AF0200 081517-24Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0200 081517-24
AF0175 081517-75Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0175 081517-75
AF0125 081517-73Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0125 081517-73
AF0250 081517-26Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0250 081517-26
AF0300 081517-28Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0300 081517-28
AF0350 081517-30Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0350 081517-30
AF0450 081517-34Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0450 081517-34
AF0400 081517-32Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0400 081517-32
AF0500 081517-36Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0500 081517-36
AF0550 081517-38Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0550 081517-38
AF0600 081517-41Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0600 081517-41
AF0650 081517-43Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0650 081517-43
AF0750 081517-76Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0750 081517-76
AF0700 081517-45Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0700 081517-45
AF0900 081517-49Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0900 081517-49
AF0800 081517-47Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF0800 081517-47
AF1000 081517-51Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF1000 081517-51
AF1100 081517-53Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF1100 081517-53
AF1200 081517-55Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF1200 081517-55
AF1300 081517-57Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF1300 081517-57
AF1400 081517-59Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF1400 081517-59
AF1500 081517-61Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF1500 081517-61
AF1600 081517-63Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF1600 081517-63

23- 2437189-PDA

Drawing No	Revision No	Drawing Title
AF1700 081517-77Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF1700 081517-77
AF1800 081517-167Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF1800 081517-167
AF1900 081517-78Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF1900 081517-78
AF2000 081517-67Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF2000 081517-67
AF2100 081517-68Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF2100 081517-68
AF2200 081517-69Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF2200 081517-69
AF2300 081517-80Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF2300 081517-80
AF2400 081517-168Calcs	-	Calculations- Standards of EJMA- Pos.-No. AF2400 081517-168
AM0100 081517-12Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0100 081517-12
AM0150 081517-14Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0150 081517-14
AM0125 081517-13Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0125 081517-13
AM0175 081517-15Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0175 081517-15
AM0200 081517-87Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0200 081517-87Calcs
AM0250 081517-89Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0250 081517-89
AM0350 081517-93Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0350 081517-93
AM0300 081517-91Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0300 081517-91
AM0400 051817-95Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0400 051817-95
AM0450 081517-97Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0450 081517-97
AM0550 081517-103Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0550 081517-103
AM0500 081517-99Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0500 081517-99
AM0600 081517-105Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0600 081517-105
AM0700 081517-111Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0700 081517-111
AM0650 081517-107Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0650 081517-107
AM0750 081517-16Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0750 081517-16
AM0800 081517-113Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0800 081517-113
AM0900 081517-115Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM0900 081517-115
AM1000 081517-117Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM1000 081517-117
AM1100 081517-119Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM1100 081517-119
AM1300 081517-123Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM1300 081517-123
AM1200 081517-121Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM1200 081517-121

23- 2437189-PDA

Drawing No	Revision No	Drawing Title
AM1500 081517-127Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM1500 081517-127
AM1400 081517-131Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM1400 081517-131
AM1700 081517-17Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM1700 081517-17
AM1600 081517-129Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM1600 081517-129
AM2000 081517-133Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM2000 081517-133
AM1900 081517-18Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM1900 081517-18
AM1800 081517-131Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM1800 081517-131
AM2200 081517-135Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM2200 081517-135
AM2100 081517-19Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM2100 081517-19
AM2300 081517-20Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM2300 081517-20
AM2400 081517-137Calcs	-	Calculations- Standards of EJMA- Pos.-No. AM2400 081517-137
AN0125 081517-02Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0125/001/A115/BB-255 081517-02
AN0100 081517-01Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0100 081517-01
AN0200 081517-23Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0200 081517-23
AN0175 081517-04Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0175 081517-04
AN0150 081517-03Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0150 081517-03
AN0250 081517-25Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0250 081517-25
AN0300 081517-27Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0300 081517-27
AN0350 081517-29Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0350 081517-29
AN0400 081517-31Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0400 081517-31
AN0450 081517-33Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0450 081517-33
AN0500 081517-35Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0500 081517-35
AN0550 081517-37Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0550 081517-37
AN0600 081517-40Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0600 081517-40
AN0700 081517-44Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0700 081517-44
AN0650 081517-42Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0650 081517-42
AN0750 081517-05Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0750 081517-05
AN0800 081517-46Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0800 081517-46
AN0900 081517-48Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN0900 081517-48
AN1100 081517-52Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN1100 081517-52
AN1000 081517-50Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN1000 081517-50
AN1300 081517-56Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN1300 081517-56
AN1200 081517-54Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN1200 081517-54
AN1400 081517-58Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN1400 081517-58
AN1500 081517-60Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN1500 081517-60
AN1600 081517-62Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN1600 081517-62

23- 2437189-PDA

Drawing No	Revision No	Drawing Title
AN1700 081517-06Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN1700 081517-06
AN1900 081517-07Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN1900 081517-07
AN1800 081517-64Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN1800 081517-64
AN2200 081517-68Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN2200 081517-68
AN2000 081517-66Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN2000 081517-66
AN2300 081517-09Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN2300 081517-09
AN2100 081517-08Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN2100 081517-08
AN2400 081517-70Calcs	-	Calculations- Standards of EJMA- Pos.-No. AN2400 081517-70
AP0100 081517-83Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0100 081517-83
AP0125 081517-84Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0125 081517-84
AP0150 081517-85Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0150 081517-85
AP0200 081517-88Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0200 081517-88
AP0175 081517-86Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0175 081517-86
AP0250 081517-138Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0250 081517-138
AP0350 081517-140Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0350 081517-140
AP0300 081517-139Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0300 081517-139
AP0400 051817-141Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0400 051817-141
AP0450 081517-142Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0450 081517-142
AP0550 081517-144Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0550 081517-144
AP0500 081517-143Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0500 081517-143
AP0650 081517-146Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0650 081517-146
AP0600 081517-145Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0600 081517-145
AP0700 081517-147Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0700 081517-147
AP0750 081517-170Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0750 081517-170
AP0800 081517-148Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0800 081517-148
AP1000 081517-150Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP1000 081517-150
AP0900 081517-149Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP0900 081517-149
AP1100 081517-151Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP1100 081517-151
AP1200 081517-152Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP1200 081517-152

23- 2437189-PDA

Drawing No	Revision No	Drawing Title
AP1400 081517-154Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP1400 081517-154
AP1300 081517-153Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP1300 081517-153
AP1500 081517-155Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP1500 081517-155
AP1600 081517-156Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP1600 081517-156
AP1700 081517-166Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP1700 081517-166
AP1800 081517-157Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP1800 081517-157
AP2000 081517-158Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP2000 081517-158
AP1900 081517-167Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP1900 081517-167
AP2100 081517-168Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP2100 081517-168
AP2200 081517-159Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP2200 081517-159
AP2300 081517-169Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP2300 081517-169
AP2400 081517-160Calcs	-	Calculations- Standards of EJMA- Pos.-No. AP2400 081517-160
AF0150 081517-74Dwg	-	DWG 081517-74- Expansion Joint AF0150
AF0125 081517-73Dwg	-	DWG 081517-73- Expansion Joint AF0125
AF0200 081517-24Dwg	-	DWG 081517-24- Expansion Joint AF0200
AF0250 081517-26Dwg	-	DWG 081517-26- Expansion Joint AF0250
AF0175 081517-75Dwg	-	DWG 081517-75- Expansion Joint AF0175
AF0100 081517-72Dwg	-	DWG 081517-72- Expansion Joint AF0100
AF0350 081517-30Dwg	-	DWG 081517-30- Expansion Joint AF0350
AF0300 081517-28Dwg	-	DWG 081517-28- Expansion Joint AF0300
AF0400 081517-32Dwg	-	DWG 081517-32- Expansion Joint AF0400
AF0450 081517-34Dwg	-	DWG 081517-34- Expansion Joint AF0450
AF0550 081517-38Dwg	-	DWG 081517-38- Expansion Joint AF0550
AF0500 081517-36Dwg	-	DWG 081517-36- Expansion Joint AF0500
AF0650 081517-43Dwg	-	DWG 081517-43- Expansion Joint AF0650
AF0600 081517-41Dwg	-	DWG 081517-41- Expansion Joint AF0600
AF0800 081517-47Dwg	-	DWG 081517-47- Expansion Joint AF0800
AF0700 081517-45Dwg	-	DWG 081517-45- Expansion Joint AF0700
AF0750 081517-76Dwg	-	DWG 081517-76- Expansion Joint AF0750
AF1100 081517-53Dwg	-	DWG 081517-53- Expansion Joint AF1100
AF0900 081517-49Dwg	-	DWG 081517-49- Expansion Joint AF0900
AF1000 081517-51Dwg	-	DWG 081517-51- Expansion Joint AF1000
AF1300 081517-57Dwg	-	DWG 081517-57- Expansion Joint AF1300

23- 2437189-PDA

Drawing No	Revision No	Drawing Title
AF1200 081517-55Dwg	-	DWG 081517-55- Expansion Joint AF1200
AF1500 081517-61Dwg	-	DWG 081517-61- Expansion Joint AF1500
AF1400 081517-59Dwg	-	DWG 081517-59- Expansion Joint AF1400
AF1600 081517-63Dwg	-	DWG 081517-63- Expansion Joint AF1600
AF1700 081517-77Dwg	-	DWG 081517-77- Expansion Joint AF1700
AF1900 081517-78Dwg	-	DWG 081517-78- Expansion Joint AF1900
AF1800 081517-167Dwg	-	DWG 081517-167- Expansion Joint AF1800
AF2000 081517-67Dwg	-	DWG 081517-67- Expansion Joint AF2000
AF2100 081517-68Dwg	-	DWG 081517-68- Expansion Joint AF2100
AF2200 081517-69Dwg	-	DWG 081517-69- Expansion Joint AF2200
AF2300 081517-80Dwg	-	DW 081517-80- Expansion Joint AF2300
AF2400 081517-168Dwg	-	DWG 081517-168- Expansion Joint AF2400
AM0200 081517-87 Dwg	-	DWG 081517-87- Expansion Joint AM0200
AM0250 081517-89 Dwg	-	DWG 081517-89- Expansion Joint AM0250
AM0125 081517-13 Dwg	-	DWG 081517-13- Expansion Joint AM0125
AM0150 081517-14 Dwg	-	DWG 081517-14- Expansion Joint AM0150
AM0175 081517-15 Dwg	-	DWG 081517-15- Expansion Joint AM0175
AM0100 081517-12 Dwg	-	DWG 081517-12- Expansion Joint AM0100
AM0350 081517-93 Dwg	-	DWG 081517-93- Expansion Joint AM0350
AM0300 081517-91 Dwg	-	DWG 081517-91- Expansion Joint AM0300
AM0450 081517-97 Dwg	-	DWG 081517-97- Expansion Joint AM0450
AM0400 081517-95 Dwg	-	DWG 081517-95- Expansion Joint AM0400
AM0500 081517-99 Dwg	-	DWG 081517-99- Expansion Joint AM0500
AM0550 081517-103 Dwg	-	DWG 081517-103- Expansion Joint AM0550
AM0650 081517-107 Dwg	-	DWG 081517-107 - Expansion Joint AM0650
AM0600 081517-105 Dwg	-	DWG 081517-105 - Expansion Joint AM0600
AM0700 081517-111 Dwg	-	DWG 081517-111- Expansion Joint AM0700
AM0750 081517-16 Dwg	-	DWG 081517-16- Expansion Joint AM0750
AM0900 081517-115 Dwg	-	DWG 081517-115- Expansion Joint AM0900
AM0800 081517-113 Dwg	-	DWG 081517-113- Expansion Joint AM0800
AM1100 081517-119 Dwg	-	DWG 081517-119 - Expansion Joint AM1100
AM1000 081517-117 Dwg	-	DWG 081517-117- Expansion Joint AM1000
AM1300 081517-123 Dwg	-	DWG 081517-123- Expansion Joint AM1300
AM1200 081517-121 Dwg	-	DWG 081517-121- Expansion Joint AM1200

23- 2437189-PDA

Drawing No	Revision No	Drawing Title
AM1500 081517-127 Dwg	-	DWG 081517-127 - Expansion Joint AM1500
AM1400 081517-125 Dwg	-	DWG 081517-125 - Expansion Joint AM1400
AM1700 081517-17 Dwg	-	DWG 081517-17- Expansion Joint AM1700
AM1600 081517-129 Dwg	-	DWG 081517-129- Expansion Joint AM1600
AM1900 081517-18 Dwg	-	DWG 081517-18- Expansion Joint AM1900
AM1800 081517-131 Dwg	-	DWG 081517-131- Expansion Joint AM1800
AM2000 081517-133 Dwg	-	DWG 081517-133 - Expansion Joint AM2000
AM2300 081517-20 Dwg	-	DWG 081517-20- Expansion Joint AM2300
AM2100 081517-19 Dwg	-	DWG 081517-19- Expansion Joint AM2100
AM2200 081517-135 Dwg	-	DWG 081517-135 - Expansion Joint AM2200
AM2400 081517-137 Dwg	-	DWG 081517-137- Expansion Joint AM2400
AN0100 081517-01 Dwg	-	DWG 081517-01- Expansion Joint AN0100
AN0175 081517-04 Dwg	-	DWG 081517-04- Expansion Joint AN0175
AN0200 081517-23 Dwg	-	DWG 081517-23- Expansion Joint AN0200
AN0125 081517-02 Dwg	-	DWG 081517-02- Expansion Joint AN0125
AN0150 081517-03 Dwg	-	DWG 081517-03- Expansion Joint AN0150
AN0250 081517-25 Dwg	-	DWG 081517-25- Expansion Joint AN0250
AN0300 081517-27 Dwg	-	DWG 081517-27- Expansion Joint AN0300
AN0350 081517-29 Dwg	-	DWG 081517-29 - Expansion Joint AN0350
AN0400 081517-31 Dwg	-	DWG 081517-31- Expansion Joint AN0400
AN0450 081517-32 Dwg	-	DWG 081517-32- Expansion Joint AN0450
AN0550 081517-37 Dwg	-	DWG 081517-37- Expansion Joint AN0550
AN0500 081517-35 Dwg	-	DWG 081517-35- Expansion Joint AN0500
AN0600 081517-40 Dwg	-	DWG 081517-40 - Expansion Joint AN0600
AN0650 081517-42 Dwg	-	DWG 081517-42- Expansion Joint AN0650
AN0700 081517-44 Dwg	-	DWG 081517-44- Expansion Joint AN0700
AN0750 081517-05 Dwg	-	DWG 081517-05- Expansion Joint AN0750
AN0800 081517-46 Dwg	-	DWG 081517-46- Expansion Joint AN0800
AN0900 081517-48 Dwg	-	DWG 081517-48 - Expansion Joint AN0900
AN1000 081517-50 Dwg	-	DWG 081517-50- Expansion Joint AN1000
AN1100 081517-52 Dwg	-	DWG 081517-52- Expansion Joint AN1100
AN1500 081517-60 Dwg	-	DWG 081517-60 - Expansion Joint AN1500
AN1400 081517-58 Dwg	-	DWG 081517-58 - Expansion Joint AN1400
AN1600 081517-62 Dwg	-	DWG 081517-62- Expansion Joint AN1600
AN1800 081517-64 Dwg	-	DWG 081517-64- Expansion Joint AN1800
AN1900 081517-07 Dwg	-	DWG 081517-07- Expansion Joint AN1900
AN1700 081517-06 Dwg	-	DWG 081517-06- Expansion Joint AN1700

23- 2437189-PDA

Drawing No	Revision No	Drawing Title
AN2000 081517-66 Dwg	-	DWG 081517-66 - Expansion Joint AN2000
AN2200 081517-68 Dwg	-	DWG 081517-68- Expansion Joint AN2200
AN2100 081517-08 Dwg	-	DWG 081517-08- Expansion Joint AN2100
AN2300 081517-09 Dwg	-	DWG 081517-09- Expansion Joint AN2300
AN2400 081517-70 Dwg	-	DWG 17-70- Expansion Joint AN2400
AN1300 081517-56 Dwg	-	DWG 081517-56- Expansion Joint AN1300
AN1200 081517-54 Dwg	-	DWG 081517-54 - Expansion Joint AN1200
AP0200 081517-88 Dwg	-	DWG 081517-88 - Expansion Joint AP0200
AP0175 081517-86 Dwg	-	DWG 081517-86- Expansion Joint AP0175
AP0150 081517-85 Dwg	-	DWG 081517-85- Expansion Joint AP0150
AP0250 081517-138 Dwg	-	DWG 081517-138- Expansion Joint AP0250
AP0100 081517-83 Dwg	-	DWG 081517-83- Expansion Joint AP0100
AP0125 081517-84 Dwg	-	DWG 081517-84- Expansion Joint AP0125
AP0350 081517-140 Dwg	-	DWG 081517-140- Expansion Joint AP0350
AP0400 081517-141 Dwg	-	DWG 081517-141 - Expansion Joint AP0400
AP0300 081517-139 Dwg	-	DWG 081517-139- Expansion Joint AP0300
AP0450 081517-142 Dwg	-	DWG 081517-142 - Expansion Joint AP0450
AP0500 081517-143 Dwg	-	DWG 081517-143- Expansion Joint AP0500
AP0550 081517-144 Dwg	-	DWG 081517-144- Expansion Joint AP0550
AP0600 081517-145 Dwg	-	DWG 081517-145- Expansion Joint AP0600
AP0650 081517-146 Dwg	-	DWG 081517-146- Expansion Joint AP0650
AP0700 081517-147 Dwg	-	DWG 081517-147 - Expansion Joint AP0700
AP0750 081517-170 Dwg	-	DWG 081517-170- Expansion Joint AP0750
AP0800 081517-148 Dwg	-	DWG 081517-148- Expansion Joint AP0800
AP0900 081517-149 Dwg	-	DWG 081517-149- Expansion Joint AP0900
AP1100 081517-151 Dwg	-	DWG 081517-151- Expansion Joint AP1100
AP1000 081517-150 Dwg	-	DWG 081517-150- Expansion Joint AP1000
AP1300 081517-153 Dwg	-	DWG 081517-153- Expansion Joint AP1300
AP1200 081517-152 Dwg	-	DWG 081517-152- Expansion Joint AP1200
AP1400 081517-154 Dwg	-	DWG 081517-154- Expansion Joint AP1400
AP1500 081517-155 Dwg	-	DWG 081517-155 - Expansion Joint AP1500
AP1600 081517-156 Dwg	-	DWG 081517-156- Expansion Joint AP1600
AP1700 081517-166 Dwg	-	DWG 081517-166 - Expansion Joint AP1700
AP1800 081517-157 Dwg	-	DWG 081517-157- Expansion Joint AP1800
AP1900 081517-167 Dwg	-	DWG 081517-167- Expansion Joint AP1900
AP2000 081517-158 Dwg	-	DWG 081517-158- Expansion Joint AP2000
AP2100 081517-168 Dwg	-	DWG 081517-168- Expansion Joint AP2100
AP2200 081517-159 Dwg	-	DWG 081517-159- Expansion Joint AP2200
AP2300 081517-169 Dwg	-	DWG 081517-169- Expansion Joint AP2300
AP2400 081517-160 Dwg	-	DWG 081517-160- Expansion Joint AP2400

Drawings reviewed as per T1047286 of 20 June 2013

23- 2437189-PDA

Engineering Office:	Hamburg Engineering Department	
Submitter:	HKS-CZ, S.R.O.	
Drawing No	Revision No	Drawing Title
AF-0400-001-A210-B-B-365	-	Expansion Joint
AF-0500-001-A200-B-B-360	-	Expansion Joint
AM-0600-001-A248-B-B-450	-	Expansion Joint
AM-0700-001-A250-B-B-520	-	Expansion Joint
AM-0900-001-A200-B-B-500	-	Expansion Joint
AM-1000-001-A252-B-B-620	-	Expansion Joint
AN-0400-001-A210-B-B-365	-	Expansion Joint
AN-0500-001-A200-B-B-360	-	Expansion Joint
AP-0600-001-A248-B-B-450	-	Expansion Joint
AP-0700-001-A250-B-B-520	-	Expansion Joint
AP-0900-001-A200-B-B-500	-	Expansion Joint
AP-1000-001-A252-B-B--620	-	Expansion Joint
APX-0600-001-A120-B-B-440	-	Expansion Joint
APX-0700-001-A200-B-B-524	-	Expansion Joint
APX-0900-001-A150-B-B-500	-	Expansion Joint
APX-1000-001-A180-B-B-620	-	Expansion Joint
None I	-	ASBESTOS Free Declaration
None II	-	Request Form/PDA-DUP