



CERTIFICATE NUMBER

08-BK294147-PDA

DATE

04 January 2008

ABS TECHNICAL OFFICE

Busan Engineering Services

# CERTIFICATE OF Design Assessment

This is to Certify that a representative of this Bureau did, at the request of  
**BMT CO., LTD.**

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. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: Tube Fittings

MODEL: 37 Degree Flared Tube Fittings for SAE J514

ABS RULE: 2008 Steel Vessel Rules 1-1-4/7.7, 4-6-2/5.5.5, 4-6-2/5.15, 4-6-7/3.5.1  
4-4-1/9.3.2

OTHER STANDARD: SAE J514;

AMERICAN BUREAU OF SHIPPING

Hong Mo Ahn

Engineering Type Approval Co-ordinator

BMT CO., LTD.  
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KANGSEO-KU  
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**PRODUCT:**  
**Tube Fittings**

**MODEL:**  
**37 Degree Flared Tube Fittings for SAE J514**

**Intended Service:**  
Hydraulic & Pneumatic Fluid and Instrument Control Systems.

**Description:**  
The detail description of each model is to be referred to the attachment.

**Ratings:**  
1. Material: 316 Stainless Steel, Carbon Steel & Brass. 2. Tube OD size: 2 mm~ 38 mm  
3. Pressure Ratings: as per Manufacturer's Specification and Guarantee(Catalog No.: BMT CFT-1)

**Service Restriction:**  
Unit Certification is not required for this product. For taper-thread joints are not to be used for toxic and corrosive fluid services and for all services of temperatures exceeding 495° C. In Classes I and II piping systems in general, for joining sections of hydraulic pipes and for steering gear, controllable pitch propeller and propulsion related hydraulic systems their use is limited to the following restrictions: less than 20 mm ND for 103 bar; above 20mm to 25mm ND for 82.8 bar and above 25mm to 50mm ND for 41.4 bar. In other hydraulic oil systems they may be used without pressure limitation only for connection for equipment, such as pumps, valves, cylinders, accumulators, gauges and hoses. Straight thread O-ring type fittings may be used for connections to equipment in hydraulic oil piping without pressure and service limitation, but are not to be used for joining sections of pipe. Bulkhead unions and bulkhead connectors are not considered water tight or fire-tight penetration without separate approval of penetration detail.

**Comments:**  
Not Applicable

**Notes/Documentation:**  
This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

**Term of Validity:**  
This Design Assessment Certificate number 08-BK294147-PDA, dated 04/Jan/2008 will expire on 03/Jan/2013 or at an earlier date should there be alterations to the product's design or changes to the referenced ABS Rules and other specifications, which affect the product. Product use on or after 1 January 2009, will be subject to compliance with the ABS Rules or specifications in effect when the vessel, MODU or facility is contracted. The product's acceptability on board ABS-classed vessels or facilities is defined in the service restrictions of this certificate.

**STANDARDS**

**BMT CO., LTD.**

**ABS Rules:**

2008 Steel Vessel Rules 1-1-4/7.7, 4-6-2/5.5.5, 4-6-2/5.15, 4-6-7/3.5.1  
4-4-1/9.3.2

**National:**

SAE J514

**International:**

**Government Authority:**

**EUMED:**

**Others:**

# "ATTACHMENT"

Model Name: 37 Degree Flared Tube Fittings for SAE J514

Material: 316 Stainless Steel, Carbon Steel, Brass

## Description

Unions	Union(JU), Bulkhead Union(JBHU), Weld Bulkhead Union(JBUW)
Straight Connectors	Female Bulkhead Union(JFBU), Male Connector(JMC), Female Connector(JFC), Male Swivel Connector(JMSC), Female Swivel Connector(JFSC)
45 Degrees Elbows	45 Degree Male Elbow (JHME)
90 Degree Elbows	Union Elbow (JUE), Bulkhead Union Elbow(JFBE), Male Elbow(JME), Female Elbow(JFE), Swivel Elbow(JSE)
Tees	Union Tee(JUT), Union Cross(JUC), Male Run Tee (JMRT), Male Branch Tee(JMBT), Female Run Tee(JFRT), Female Branch Tee(JFBT), Swivel Run Tee(JSRT), Swivel Branch Tee(JSBT)
O-Ring Seals	O-Ring Seal Male Connector (JOMC-G), O-Ring Seal Male Connector (JOMC-U) O-Ring Seal Male Elbow(JOME), O-Ring Seal 45 Male Elbow(JOHME), O-Ring Seal Branch Tee(JOBT), O-Ring Seal Run Tee(JORT), O-Ring Seal Male Swivel Connector(JOSMC)
Plugs	Plug(JP)
Caps	Tube Cap(JPC)
Reducers	Reducer Adapter(JRA)
Nut & Sleeve	Nut(JN), Sleeve(JS)