



MSET ENGINEERING
CORPORATION SDN BHD
(118148-X)



PRODUCT CATALOGUE LAUNCHER AND RECEIVER

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ASME
(U, U2, S)

NATIONAL BOARD
(R)

UL 58



Receiver (R-2910)



General Specification :-

Design Code : Pipeline :ASME B31.8 2003
(Design Factor = 0.5)
Closure :ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 83 bar
Design Temp : 68°C

Material : Major Barrel : API 5L Gr. X65
Minor Barrel : API 5L Gr. X65
Reducer : A 860 WPHY-65
Closure : A 694 F65
Flange : A 694 F 65 class 600
WNRF
Misc : A36

Size : Major Barrel : DN 700
Minor Barrel : DN 600
Overall Length : 5590 mm

Volume : 1.87 m³

Weight : 3237 (empty)
3287 (operating)

Special Requirement :-

PWHT : YES
NACE : YES
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

Kencana HL
PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

August

FWS Gas Receiver (R-2920)



General Specification :-

Design Code : Pipeline :ASME B31.8 2003
(Design Factor = 0.5)
Closure :ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 83 bar
Design Temp : 68°C

Material : Major Barrel : API 5L Gr. X65
Minor Barrel : API 5L Gr. X65
Reducer : A 860 WPHY-65
Closure : A 694 F65
Flange : A 694 F 65 class 600
WNRF
Misc : A36

Size : Major Barrel : DN 700
Minor Barrel : DN 600
Overall Length : 5590 mm

Volume : 1.87 m³

Weight : 3237 (empty)
3287 (operating)

Special Requirement :-

PWHT : YES
NACE : YES
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

Kencana HL
PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

May 2009

Receiver (R-2950)



General Specification :-

Design Code : Pipeline : ASME B31.8 2003
 (Design Factor = 0.5)
 Closure : ASME Sec.VIII DIV.1
 UG 35 (b)

Design Data : Design Pressure : 83 bar
 Design Temp : 68°C

Material : Major Barrel : API 5L Gr. X65
 Minor Barrel : API 5L Gr. X65
 Reducer : A 860 WPHY-65
 Closure : A 694 F65
 Flange : A 694 F 65 class 600
 WNRF
 Misc : A36

Size : Major Barrel : DN 700
 Minor Barrel : DN 600
 Overall Length : 5590 mm

Volume : 1.87 m³

Weight : 3243 (empty)
 3293 (operating)

Special Requirement :-

PWHT : YES
 NACE : YES
 Impact Test : NO

Spare Part :-

Gasket : NO
 Bolt : NO

Client :-

Kencana HL
 PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

December

WEST LUTONG PIPELINE REPLACEMENT PROJECT

Receiver (R-1310)



General Specification :-

Design Code : Pipeline : ASME B31.4
(Design Factor = 0.5)
End Closure : ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 97.6 bar
Design Temp : 65 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X65
Reducer : MSS SP 75 WPHY65
Closure : SA 694 F65
Flange : ASTM A 694 F 65/WPHY X - 65
Misc : A 36

Size : Major Barrel Diameter : DN 350
Minor Barrel Diameter : DN 250
Overall Length : 8003 mm

Volume : 0.42 m³

Weight : 1778 kg (empty)
1900 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

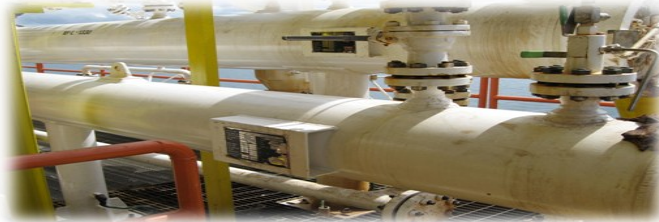
PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

February 2007

WEST LUTONG PIPELINE REPLACEMENT PROJECT

Launcher (L-1310)



General Specification :-

Design Code : Pipeline :ASME B31.4
(Design Factor = 0.5)
End Closure :ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 97.6 bar
Design Temp : 65 °C

Material : Major Barrel : API 5L X60
Minor Barrel : API 5L X60
Reducer : MSS SP 75 WPHY65
Closure : SA 694 F65
Flange : ASTM A 694 F 65/WPHY X - 65
Misc : A 36

Size : Major Barrel Diameter : DN 350
Minor Barrel Diameter : DN 250
Overall Length : 8003 mm

Volume : 0.42 m³

Weight : 1778 kg (empty)
1900 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

February 2007

BETTY RE-VISIT 4 PROJECT

Receiver (R-9400)



General Specification :-

Design Code : Pipeline :ASME B31.8 & pts 31.40.10.13
(Design Factor = 0.5)

End Closure :ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 26.5 bar
Design Temp : 93.3 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X65
Reducer : ASTM A 860 WPHY65
Closure : A 694 F65
Flange : ASTM A 694 F 65 class
300 WNRF
Misc : A 36

Size : Major Barrel Diameter : DN 500
Minor Barrel Diameter : DN 400
Overall Length : 1082mm

Volume : 1.84m³

Weight : 2730 kg (empty)
2730 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

September 2007

MSET ENGINEERING CORPORATION SDN. BHD.

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BETTY RE-VISIT 4 PROJECT

Launcher (L-950)



General Specification :-

Design Code : Pipeline :ASME B31.8 & pts 31.40.10.13
(Design Factor = 0.5)

End Closure :ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 26.5 bar
Design Temp : 93.3 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X65
Reducer : ASTM A 860 WPHY65
Closure : A 694 F65
Flange : ASTM A 694 F 65 class
300 WNRF
Misc : A 36

Size : Major Barrel Diameter : DN 050
Minor Barrel Diameter : DN 450
Overall Length : 7108 mm

Volume : 1.27 m³

Weight : 2250 kg (empty)
2250 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

September 2007

MSET ENGINEERING CORPORATION SDN. BHD.

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MEARSK OIL QATAR PROJECT

Launcher (EP-3801)



General Specification :-

Design Code : Pipeline :PD 5500
 Closure :PD 5500

Design Data : Design Pressure :139.7 bar
 Design Temp : 93 °C

Material : Major Barrel : SA 516 Gr 70N
 Minor Barrel : SA 516 Gr 70N
 Reducer : SA 420 WPL 6
 Closure : SA 694 F60
 Flange : SA 336 GR B/S350LF2
 Misc : SA 36

Size : Major Barrel Diameter : DN 600
 Minor Barrel Diameter : DN 500
 Overall Length : 5965 mm

Volume : 1.4 m³

Weight : 4630 kg (empty)
 4460 kg (operating)

Spare Part :-

Gasket : NO
 Bolt : NO

Client :-

Maersk Oil Qatar

Delivery :-

October 2008

Special Requirement :-

PWHT : YES
 NACE : YES
 Impact Test : NO

MSET ENGINEERING CORPORATION SDN. BHD.

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MEARSK OIL QATAR PROJECT

Launcher (EP-3802)



General Specification :-

Design Code : Pipeline :PD 5500
 Closure :PD 5500

Design Data : Design Pressure :139.7 bar
 Design Temp : 93 °C

Material : Major Barrel : SA 516 Gr 70N
 Minor Barrel : SA 516 Gr 70N
 Reducer : SA 420 WPL 6
 Closure : SA 694 F60
 Flange : SA 336 GR B/S350LF2
 Misc : SA 36

Size : Major Barrel Diameter : DN 600
 Minor Barrel Diameter : DN 500
 Overall Length : 5965 mm

Volume : 1.4 m³

Weight : 4360 kg (empty)
 4460 kg (operating)

Spare Part :-

Gasket : NO
 Bolt : NO

Client :-

Maersk Oil Qatar

Delivery :-

October 2008

Special Requirement :-

PWHT : YES
 NACE : YES
 Impact Test : NO

MSET ENGINEERING CORPORATION SDN. BHD.

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MEARSK OIL QATAR PROJECT

Launcher (EP-3804)



General Specification :-

Design Code : Pipeline :PD 5500
 Closure :PD 5500

Design Data : Design Pressure : 142.4 bar
 Design Temp : 82°C

Material : Major Barrel : SA 516 Gr 70N
 Minor Barrel : SA 516 Gr 70N
 Reducer : SA 420 WPL 6
 Closure : SA 694 F60
 Flange : SA 336 GR B/S350LF2
 Misc : SA 36

Size : Major Barrel Diameter : DN 500
 Minor Barrel Diameter : DN 400
 Overall Length : 5933 mm

Volume : 0.95 m³

Weight : 2970 kg (empty)
 3070 kg (operating)

Spare Part :-

Gasket : NO
 Bolt : NO

Client :-

Maersk Oil Qatar

Delivery :-

September 2008

Special Requirement :-

PWHT : YES
 NACE : YES
 Impact Test : NO

J4 DEVELOPMENT PROJECT

Receiver (R-1330)



General Specification :-

Design Code : Pipeline :ASME B31.8
(Design Factor = 0.5)
End Closure :ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 138 bar
Design Temp : 90 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X65
Reducer : MSS SP 75 WPHY65
Closure : SA 694 F65
Flange : ASTM A 694 F 65
Misc : A 36

Size : Major Barrel Diameter : DN 300
Minor Barrel Diameter : DN 250
Overall Length : 8993 mm

Volume : 0.6 m³

Weight : 1485 kg (empty)
1550 kg (operating)

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Kencana HL

Delivery :-

February 2008

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

MSET ENGINEERING CORPORATION SDN. BHD.

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J4 DEVELOPMENT PROJECT

Launcher (L-1300)



General Specification :-

Design Code : Pipeline : ASME B31.8
(Design Factor = 0.5)
End Closure : ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 138 bar
Design Temp : 90 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X65
Reducer : MSS SP 75 WPHY65
Closure : SA 694 F65
Flange : ASTM A 694 F 65
Misc : A 36

Size : Major Barrel Diameter : DN 300
Minor Barrel Diameter : DN 250
Overall Length : 6003 mm

Volume : 0.4 m³

Weight : 1190 kg (empty)
1250 kg (operating)

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Kencana HL

Delivery :-

February 2008

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

MSET ENGINEERING CORPORATION SDN. BHD.

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PC4 GAS DEVELOPMENT PROJECT

Receiver (R-2950)



General Specification :-

Design Code : Pipeline :ASME B31.8
(Design Factor = 0.5)
End Closure :ASME Sec.VIII DIV.1
oG 35 (b)

Design Data : Design Pressure : 214 bar
Design Temp : 120 °C

Material : Major Barrel : API 5L X65 (Sour Service)
Minor Barrel : API 5L X65 (Sour Service)
Reducer : MSS/SP-75 WPHT 65 (Sour Service)
Closure : A-694 F65
Flange : ASTM A-694 F 65
Misc : SA 36

Size : Major Barrel Diameter : DN 400
Minor Barrel Diameter : DN 300
Overall Length : 6003 mm

Volume : 0.72 m³

Weight : 2890 kg (empty)
3000 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

April 2008

MSET ENGINEERING CORPORATION SDN. BHD.

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PC4 GAS DEVELOPMENT PROJECT

Launcher (L-1300)



General Specification :-

Design Code : Pipeline : ASME B31.8
(Design Factor = 0.5)
End Closure : ASME Sec.VIII DIV.1
oG 35 (b)

Design Data : Design Pressure : 214 bar
Design Temp : 120 °C

Material : Major Barrel : API 5L X65 (Sour Service)
Minor Barrel : API 5L X65 (Sour Service)
Reducer : MSS/SP-75 WPHt 65 (Sour Service)
Closure : A-694 F65
Flange : ASTM A-694 F 65
Misc : SA 36

Size : Major Barrel Diameter : DN 400
Minor Barrel Diameter : DN 300
Overall Length : 6003 mm

Volume : 0.72 m³

Weight : 2140 kg (empty)
2200 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

April 2008

MSET ENGINEERING CORPORATION SDN. BHD.

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BOKOR PHASE 2 RE-DEVELOPMENT

Receiver (R-930)



General Specification :-

Design Code : Pipeline : ASME B31.8 EDD 2003
(Design Factor = 0.5)
End Closure : ASME Sec.VIII DIV.1
uG 35 (b)

Design Data : Design Pressure : 49 bar
Design Temp : 66 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X65
Reducer : MSS SP 75 WPHY 65
Closure : ATSM A694 Gr.F65
Flange : ASTM A-694 F 65
Misc : SA 36

Size : Major Barrel Diameter : DN 400
Minor Barrel Diameter : DN 300
Overall Length : 9016 mm

Volume : 0.85 m³

Weight : 1650 kg (empty)
1750 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Vastalux Sdn. Bhd.

Delivery :-

March 2008

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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BOKOR PHASE 2 RE-DEVELOPMENT

Launcher (L-940)



General Specification :-

Design Code : Pipeline : ASME B31.8 EDD 2003
(Design Factor = 0.5)

End Closure : ASME Sec.VIII DIV.1
uG 35 (b)

Design Data : Design Pressure : 49 bar
Design Temp : 66 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X65
Reducer : MSS SP 75 WPHY 65
Closure : ATSM A694 Gr.F65
Flange : ASTM A-694 F 65
Misc : SA 36

Size : Major Barrel Diameter : DN 400
Minor Barrel Diameter : DN 300
Overall Length : 5886 mm

Volume : 0.62 m³

Weight : 1420 kg (empty)
1500 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Vastalux Sdn. Bhd.

Delivery :-

March 2008

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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SEMARANG PIPELINE REPLACEMENT PROJECT

Receiver (R-1011)



General Specification :-

Design Code : Pipeline : ASME B31.8
(Design Factor = 0.5)
End Closure : ASME Sec.VIII DIV.1
2007 Edition

Design Data : Design Pressure : 99.28 bar
Design Temp : 40/21 °C

Material : Major Barrel : API 5L Gr. X42
Minor Barrel : API 5L Gr. X42
Reducer : SA 234 WPB
Closure : MSS/SP-75 WPHY 60
Flange : SA 105
Misc : SA 36

Size : Major Barrel Diameter : DN 200
Minor Barrel Diameter : DN 150
Overall Length : 4991 mm

Volume : 0.12 m³

Weight : 665 kg (empty)
765 kg (operating)

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Shapadu

Delivery :-

April 2008

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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SEMARANG PIPELINE REPLACEMENT PROJECT

Launcher (L-0901)



General Specification :-

Design Code : Pipeline : ASME B31.4
(Design Factor = 0.5)
End Closure : ASME Sec.VIII DIV.1
2007 Edition

Design Data : Design Pressure : 99.28 bar
Design Temp : 40/21 °C

Material : Major Barrel : API 5L Gr. X42
Minor Barrel : API 5L Gr. X42
Reducer : SA 234 WPB
Closure : MSS/SP-75 WPHY 60
Flange : SA 105
Misc : SA 36

Size : Major Barrel Diameter : DN 200
Minor Barrel Diameter : DN 150
Overall Length : 3865 mm

Volume : 0.8 m³

Weight : 616 kg (empty)
666 kg (operating)

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Shapadu

Delivery :-

April 2008

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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BODP-C TO BOP-A OIL PIPELINE REPLACEMENT PROJECT

Receiver (R-1100)



General Specification :-

Design Code : Pipeline :ASME B31.4 2002
(Design Factor = 0.5)

End Closure :ASME Sec.VIII DIV.1
OG 35(b)

Design Data : Design Pressure : 102 bar
Design Temp : 36 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X60
Reducer : ASTM A860 Gr. WPHY-60
Closure : A-694 F65
Flange : ASTM A 694 F65
Misc : SA 36

Size : Major Barrel Diameter : DN 300
Minor Barrel Diameter : DN 250
Overall Length : 5920 mm

Volume : 0.4 m³

Weight : 1580 kg (empty)
1730 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Dayang Enterprice

Delivery :-

October 2008

MSET ENGINEERING CORPORATION SDN. BHD.

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BODP-C TO BOP-A OIL PIPELINE REPLACEMENT PROJECT

Launcher (L-1100)



General Specification :-

Design Code : Pipeline : ASME B31.4 2002
(Design Factor = 0.5)

End Closure : ASME Sec.VIII DIV.1
OG 35(b)

Design Data : Design Pressure : 102 bar
Design Temp : 36 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X60
Reducer : ASTM A860 Gr. WPHY-60
Closure : A-694 F65
Flange : ASTM A 694 F65
Misc : SA 36

Size : Major Barrel Diameter : DN 300
Minor Barrel Diameter : DN 250
Overall Length : 4758 mm

Volume : 0.3m³

Weight : 1270 kg (empty)
1420 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Dayang Enterprice

Delivery :-

October 2008

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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KUMANG CLUSTER DEVELOPMENT

Launcher (KUJT-A)(L-2910)



General Specification :-

Design Code : Pipeline :ASME B31.8 2007
(Design Factor = 0.5)
End Closure :ASME Sec.VIII DIV.1
UG 35(b)

Design Data : Design Pressure : 83 bar
Design Temp : 65 °C

Material : Major Barrel : API 5L X65 PSL 2
Minor Barrel : API 5L X60 PSL 2
Reducer : A 860 WPHY-65
Closure : A 694 F65
Flange : A 694 GR F65
Misc : A 36

Size : Major Barrel Diameter : DN 500
Minor Barrel Diameter : DN 450
Overall Length : 7400mm

Volume : 1.3m³

Weight : 2592 kg (empty)
2862 kg (operating)

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Sime Darby

Delivery :-

June 2009

Special Requirement :-

PWHT : YES
NACE : YES
Impact Test : YES

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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KUMANG CLUSTER DEVELOPMENT

Launcher (F9JT(A)(L-2910)



General Specification :-

Design Code : Pipeline :ASME B31.8 2007
(Design Factor = 0.5)
End Closure :ASME Sec.VIII DIV.1
UG 35(b)

Design Data : Design Pressure : 137 bar
Design Temp : 65 °C

Material : Major Barrel : API 5L X65 PSL 2
Minor Barrel : API 5L X60 PSL 2
Reducer : A 860 WPHY-65
Closure : A 694 F65
Flange : A 694 GR F65
Misc : A 36

Size : Major Barrel Diameter : DN 800
Minor Barrel Diameter : DN 700
Overall Length : 7650 mm

Volume : 1.3m³

Weight : 8788 kg (empty)
8938 kg (operating)

Special Requirement :-

PWHT : YES
NACE : YES
Impact Test : YES

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Sime Darby

Delivery :-

June 2009

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

TEL : +609-827 1777 FAX : +609-827 1871 EMAIL : msetec@mset.com.my WEBSITE : www.mset.com.my

KUMANG CLUSTER DEVELOPMENT

Launcher (KUJT(A)(L-2920)



General Specification :-

Design Code : Pipeline : ASME B31.8 2007
(Design Factor = 0.5)
End Closure : ASME Sec.VIII DIV.1
UG 35(b)

Design Data : Design Pressure : 83 bar
Design Temp : 65 °C

Material : Major Barrel : API 5L X65 PSL 2
Minor Barrel : API 5L X60 PSL 2
Reducer : A 860 WPHY-65
Closure : A 694 F65
Flange : A 694 GR F65
Misc : A 36

Size : Major Barrel Diameter : DN 500
Minor Barrel Diameter : DN 450
Overall Length : 8040 mm

Volume : 1.3m³

Weight : 2497 kg (empty)
2766 kg (operating)

Special Requirement :-

PWHT : YES
NACE : YES
Impact Test : YES

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Sime Darby

Delivery :-

June 2009

MSET ENGINEERING CORPORATION SDN. BHD.

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Receiver (R-2920)



General Specification :-

Design Code : Pipeline : ASME B31.8 2003
(Design Factor = 0.5)
End Closure : ASME Sec.VIII DIV.1
UG 35(b)

Design Data : Design Pressure : 83 bar
Design Temp : 65 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X60
Reducer : A 860 WPHY 65
Closure : A 694 F65
Flange : A 694 GR F65
Misc : A 36

Size : Major Barrel Diameter : DN 700
Minor Barrel Diameter : DN 600
Overall Length : 5590 mm

Volume : 1.87 m³

Weight : 3237 kg (empty)
3287 kg (operating)

Special Requirement :-

PWHT : YES
NACE : YES
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

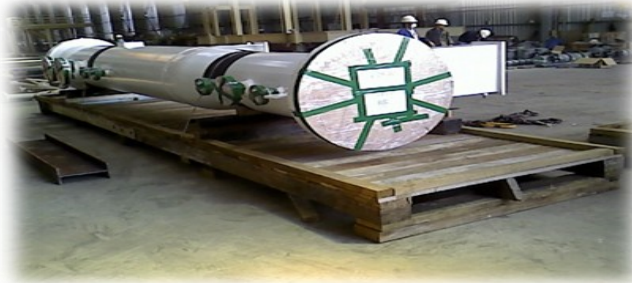
Client :-

PETRONAS CARIGALI Sdn. Bhd.
Sime Darby

Delivery :-

August 2009

Launcher (L-2910)



General Specification :-

Design Code : Pipeline : ASME B31.8 2003
(Design Factor = 0.5)
End Closure : ASME Sec.VIII DIV.1
UG 35(b)

Design Data : Design Pressure : 83 bar
Design Temp : 65 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X60
Reducer : A 860 WPHY 65
Closure : A 694 F65
Flange : A 694 GR F65
Misc : A 36

Size : Major Barrel Diameter : DN 700
Minor Barrel Diameter : DN 600
Overall Length : 5488 mm

Volume : 1.86 m³

Weight : 3383 kg (empty)
3433 kg (operating)

Special Requirement :-

PWHT : YES
NACE : YES
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Sime Darby

Delivery :-

June 2009

DULANG FIELD COMPRESSED GAS CAPACITY ENCHANCEMENT

Receiver (DL-A)R-104)



General Specification :-

Design Code : Pipeline :ASME B31.8 2003
(Design Factor = 0.5)
End Closure :ASME Sec.VIII DIV.1
UG 35(b)

Design Data : Design Pressure : 146 bar
Design Temp : 93 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X65
Reducer : SA 860 WPHY 60
Closure : SA 694 F60
Flange : SA 694 GR F65
Misc : SSA 36

Size : Major Barrel Diameter : DN 200
Minor Barrel Diameter : DN 150
Overall Length : 5022 mm

Volume : 3.3 m³

Weight : 810 kg (empty)
932 kg (operating)

Special Requirement :-

PWHT : YES
NACE : YES
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Kencana HL

Delivery :-

May 2009

MSET ENGINEERING CORPORATION SDN. BHD.

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DULANG FIELD COMPRESSED GAS CAPACITY ENCHANCEMENT

Receiver (DL-C) (R-104)



General Specification :-

Design Code : Pipeline : ASME B31.8 2003
(Design Factor = 0.5)

End Closure : ASME Sec.VIII DIV.1
UG 35(b)

Design Data : Design Pressure : 146 bar
Design Temp : 93 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X65
Reducer : SA 860 WPHY 60
Closure : SA 694 F60
Flange : SA 694 GR F65
Misc : SSA 36

Size : Major Barrel Diameter : DN 200
Minor Barrel Diameter : DN 150
Overall Length : 5188 mm

Volume : 3.3 m³

Weight : 810 kg (empty)
932 kg (operating)

Special Requirement :-

PWHT : YES
NACE : YES
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Kencana HL

Delivery :-

June 2009

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

TEL : +609-827 1777 FAX : +609-827 1871 EMAIL : msetec@mset.com.my WEBSITE : www.mset.com.my

D1 CLUSTER DEVELOPMENT PROJECT

Receiver (R-1360)



General Specification :-

Design Code : Pipeline :ASME B31.8 2003
(Design Factor = 0.5)
End Closure :ASME Sec.VIII DIV.1

Design Data : Design Pressure : 102 bar
Design Temp : 90 °C

Material : Major Barrel : API 5L X42
Minor Barrel : API 5L X42
Reducer : MSS/SP-75 WPHY 65
Closure : SA 694 F65
Flange : SA 694 GR F65
Misc : SA 36

Size : Major Barrel Diameter : DN 450
Minor Barrel Diameter : DN 400
Overall Length : 7041 mm

Volume : 0.9 m³

Weight : 2045 kg (empty)
2045 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : YES
Bolt : YES

Client :-

PCPP OPERATING COMPANY

Delivery :-

June 2009

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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FAIRLEY BARAM 6" GASLIFT 6" MULTIPHASE & KUMANG 28" PIPELINE

Launcher (L-1300)



General Specification :-

Design Code : Pipeline :ASME B31.4 2006
(Design Factor = 0.5)

End Closure :ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 102.1 bar
Design Temp : 94 °C

Material : Major Barrel : API 5L X60
Minor Barrel : API 5L X60
Reducer : MSS-SP-WPHY 60
Closure : A 694 F60
Flange : SA 694 GR F60
Misc : A 36

Size : Major Barrel Diameter : DN 200
Minor Barrel Diameter : DN 150
Overall Length : 4911.75mm

Volume : 0.14 m³

Weight : 534 kg (empty)
657 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : YES
Bolt : YES

Client :-

PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

December 2009

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

TEL : +609-827 1777 FAX : +609-827 1871 EMAIL : msetec@mset.com.my WEBSITE : www.mset.com.my

FAIRLEY BARAM 6" GASLIFT 6" MULTIPHASE & KUMANG 28" PIPELINE

Receiver (R-1300)



General Specification :-

Design Code : Pipeline :ASME B31.4 2006
(Design Factor = 0.5)

End Closure :ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 102.1 bar
Design Temp : 94 °C

Material : Major Barrel : API 5L X60
Minor Barrel : API 5L X60
Reducer : MSS-SP-WPHY 60
Closure : A 694 F60
Flange : SA 694 GR F60
Misc : A 36

Size : Major Barrel Diameter : DN 200
Minor Barrel Diameter : DN 150
Overall Length : 4772 mm

Volume : 0.12 m³

Weight : 820 kg (empty)
825 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : YES
Bolt : YES

Client :-

PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

December 2009

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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FAIRLEY BARAM 6" GASLIFT 6" MULTIPHASE & KUMANG 28" PIPELINE

Launcher (L-9010)



General Specification :-

Design Code : Pipeline :ASME B31.4 2006
(Design Factor = 0.5)

End Closure :ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 100 bar
Design Temp : 65 °C

Material : Major Barrel : API 5L X60
Minor Barrel : API 5L X60
Reducer : MSS-SP-WPHY 60
Closure : A 694 F60
Flange : SA 694 GR F60
Misc : A 36

Size : Major Barrel Diameter : DN 200
Minor Barrel Diameter : DN 150
Overall Length : 4911.75 mm

Volume : 0.1 m³

Weight : 548 kg (empty)
662 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : YES
Bolt : YES

Client :-

PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

December 2009

MSET ENGINEERING CORPORATION SDN. BHD.

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PIPELINE PL347

Bakau Field Receiver (R-930A)



General Specification :-

Design Code : Pipeline : ASME B31.8
(Design Factor = 0.5)
End Closure : ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 99.3 bar
Design Temp : 66 °C

Material : Major Barrel : API 5L X65
Minor Barrel : API 5L X60 ERW
Reducer : ASTM A 860 WPHY 60
Closure : A 350 LF2
Flange : A 694 Gr. F60 class 600 WNRF
Misc : A 36

Size : Major Barrel Diameter : DN 350
Minor Barrel Diameter : DN 250
Overall Length : 5780.2 mm

Volume : 0.39 m³

Weight : 1487 kg (empty)
1722 kg (operating)

Spare Part :-

Gasket : 200%
Bolt : 10% or 4 set Min

Client :-

PETRONAS CARIGALI Sdn. Bhd.
Kencana HL

Delivery :-

December 2009

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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WEST BELUMUT WELLHEAD PLATFORM

Receiver (R-210/EBP)



General Specification :-

Design Code : Pipeline :ASME B31.8 & +16 GS 16.01

End Closure :ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 1380 psi(g)
Design Temp : 174 °F

Material : Major Barrel : A 106 Gr. B
Minor Barrel : A 106 Gr. B
Reducer : A 234 WPB
Closure : A 105 N
Flange : A 105 N class 600
Misc : A 36

Size : Major Barrel Diameter : DN 300
Minor Barrel Diameter : DN 250
Overall Length : 4979.2 mm

Volume : 0.29 m³

Weight : 1224 kg (empty)
1322 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

Kencana HL
Newfield

Delivery :-

December 2009

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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WEST BELUMUT WELLHEAD PLATFORM

Launcher (L-210/WBWP)



General Specification :-

Design Code : Pipeline :ASME B31.8 & +16 GS 16.01

End Closure :ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 1376 psi(g)
Design Temp : 180 °F

Material : Major Barrel : A 106 Gr. B
Minor Barrel : A 106 Gr. B
Reducer : A 234 WPB
Closure : A 105 N
Flange : A 105 N class 600
Misc : A 36

Size : Major Barrel Diameter : DN 300
Minor Barrel Diameter : DN 250
Overall Length : 4002.02 mm

Volume : 0.25 m³

Weight : 1168 kg (empty)
1249 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

Kencana HL
Newfield

Delivery :-

December 2009

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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WEST BELUMUT WELLHEAD PLATFORM

Launcher (L-080/EBP)



General Specification :-

Design Code : Pipeline :ASME B31.8 & +16 GS 16.01

End Closure :ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 1950 psi(g)
Design Temp : 174 °F

Material : Major Barrel : A 106 Gr. B
Minor Barrel : A 106 Gr. B
Reducer : A 234 WPB
Closure : A 105 N
Flange : A 105 N class 600
Misc : A 36

Size : Major Barrel Diameter : DN 150
Minor Barrel Diameter : DN 100
Overall Length : 1518.6 mm

Volume : 0.02 m³

Weight : 511 kg (empty)
518 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

Kencana HL
Newfield

Delivery :-

December 2009

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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WEST BELUMUT WELLHEAD PLATFORM

Receiver (R-210/WBP)



General Specification :-

Design Code : Pipeline :ASME B31.3 2006
End Closure :ASME Sec.VIII DIV.1
UG 35 (b)
Design Data : Design Pressure :1950 psi
Design Temp : 180 °F
Material : Major Barrel : A 106 Gr. B
Minor Barrel : A 106 Gr. B
Reducer : A 234 WPB
Closure : A 105 N
Flange : A 105 N class 600
Misc : A 36
Size : Major Barrel Diameter : DN 150
Minor Barrel Diameter : DN 100
Overall Length : 1498.33 mm

Volume : 0.02 m³

Weight : 416 kg (empty)
423 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

Kencana HL
Newfield

Delivery :-

December 2009

MSET ENGINEERING CORPORATION SDN. BHD.

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DULANG A TO DULANG B

Scraper Launcher (L-103)



General Specification :-

Design Code : Pipeline :ASME B31.8 2007
(Design Factor = 0.6
End Closure :ASME Sec.VIII DIV.1
UG 35 (b)

Design Data : Design Pressure : 139.1 bar
Design Temp : 93 °F

Material : Major Barrel : API 5L Gr.X65
Minor Barrel : API 5L Gr.X65
Reducer : MSS-SP-75 WPHY-65
Closure : A 694 F65
Flange : A 694 F 65 Class 1500 WNRTJ
Misc : A 36

Size : Major Barrel Diameter : DN 400
Minor Barrel Diameter : DN 300
Overall Length : 4460 mm

Volume : 0.49 m³

Weight : 2198 kg (empty)
2497 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

January 2010

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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FAIRLEY BARAM 6" GASLIFT 6" MULTIPHASE & KUMANG 28" PIPELINE

Receiver A-201C



General Specification :-

Design Code : Pipeline :ASME B31.8
(Design Factor = 0.72
End Closure :ASME Sec.VIII DIV.1
UG 35.2 (b)

Design Data : Design Pressure :133.00 bar
Design Temp : 65 °F

Material : Major Barrel : API 5L Gr.X65
Minor Barrel : API 5L Gr.X60
Reducer : A 860 WPY 65
Closure : A 694 F65
Flange : A STMA 694 F 65
Misc : A 36

Size : Major Barrel Diameter : DN 800
Minor Barrel Diameter : DN 700
Overall Length : 8310 mm

Volume : 3 m³

Weight : 7127 kg (empty)
9895 kg (operating)

Spare Part :-

Gasket : YES
Bolt : YES

Client :-

PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

March 2010

Special Requirement :-

PWHT : YES
NACE : YES
Impact Test : NO

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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FABRICATE & DELIVER ONE UNIT OF RECEIVER FOR BARONIA PL282 AT BNDP-1

Receiver R-930



General Specification :-

Design Code : Pipeline :ASME B31.4
(Design Factor = 0.72)

End Closure :ASME Sec.VIII DIV.1
UG 35.2 (b)

Design Data : Design Pressure : 250 bar
Design Temp : 37.78 °F

Material : Major Barrel : API 5L Gr.X60
Minor Barrel : API 5L Gr.X60
Reducer : A860 WPHY 60
Closure : A 694 F60
Flange : A STMA 694
Misc : A 36

Size : Major Barrel Diameter : DN 250
Minor Barrel Diameter : DN 200
Overall Length : 5253 mm

Volume : 0.2 m³

Weight : 921 kg (empty)
1118 kg (operating)

Special Requirement :-

PWHT : NO

NACE : NO

Impact Test : NO

Spare Part :-

Gasket : YES

Bolt : YES

Client :-

PETRONAS CARIGALI Sdn. Bhd.

Delivery :-

March 2010

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

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DESIGN & SUPPLY OF PRESSURE VESSELS PACKAGE FOR ST .JOSEPH RE- DEVELOPMENT PROJECT

Receiver R-0910 SJJT-G



General Specification :-

Design Code : Pipeline :ASME B31.4
(Design Factor = 0.6
End Closure :ASME Sec.VIII DIV.1
UG 35.2 (b)

Design Data : Design Pressure : 244.3 bar
Design Temp : 65 °c

Material : Major Barrel : API 5L Gr.X65
Minor Barrel : API 5L Gr.X60
Reducer : A 694 F65
Closure : A 694 GR F65
Flange : A 694 F 65
Misc : A 36

Size : Major Barrel Diameter : DN 250
Minor Barrel Diameter : DN 200
Overall Length : 8407 mm

Volume : 0.3 m³

Weight : 1902 kg (empty)
2025 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

SABAH SHELL
PETROLEUM.CO.LTD

Delivery :-

March 2010

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

TEL : +609-827 1777 FAX : +609-827 1871 EMAIL : msetec@mset.com.my WEBSITE : www.mset.com.my

Launcher L-2900



General Specification :-

Design Code : Pipeline :ASME B31.8-2007 ED
(Design Factor = 0.5
& PTS 31.40.10.13
End Closure :ASME Sec.VIII DIV.1
UG 35.2 (b)

Design Data : Design Pressure : 135 bar
Design Temp : 90 °c

Material : Major Barrel : API 5L Gr.X65
Minor Barrel : API 5L Gr.X65
Reducer : A 694 F65
Closure : A 694 GR F65
Flange : A 694 F 65
Misc : A 36

Size : Major Barrel Diameter : DN 600
Minor Barrel Diameter : DN 450
Overall Length : 5920 mm

Volume : 1.3 m³

Weight : 4393 kg (empty)
5262 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO
Closure seal : YES

Client :-

KHL

Delivery :-

March 2010

TANGGA BARAT DRILLING RISER PLATFORM (TBDR-A) TOPSIDE & JACKET FOR TANGGA BARAT CLUSTER DEVELOPMENT PROJECT.

R-2950



General Specification :-

Design Code : Pipeline :ASME B31.8-2003
(Design Factor = 0.5
End Closure :ASME Sec.VIII DIV.1
UG 35.2 (b)

Design Data : Design Pressure : 83 bar
Design Temp : 65 °c

Material : Major Barrel : API 5L Gr.X65
Minor Barrel : API 5L Gr.X65
Reducer : MSS SP 75 WPHY 65
Closure : SA 694N F65
Flange : ASTM A 694 F65
Misc : A 36

Size : Major Barrel Diameter : DN 700
Minor Barrel Diameter : DN 600
Overall Length : 5610 mm

Volume : 1.87 m³

Weight : 3243 kg (empty)
3293 kg (operating)

Special Requirement :-

PWHT : YES
NACE : NO
Impact Test : NO

Spare Part :-

Gasket : NO
Bolt : NO

Client :-

PETRONAS CARIGALI SDN.BHD.
KHL

Delivery :-

JUNE 2010

CONCEPTUAL AND FRONT END ENGINEERING DESIGN SERVICES FOR SABAH OIL AND TERMINAL PROJECT

Crude Export Launcher (L-1380)



General Specification :-

Design Code : Pipeline :ASME B31.4-2009
(Design Factor = 0.5)

Design Data : Design Pressure : 40 bar (G)
Design Temp : 65 °c

Material : Quick Opening : A 694 F 65
Closure
Shell : API 5L x 65
Nozzle Flange : A 694 F 65
Nozzle Pipe : API 5L GR.B

Size : Length : 8981.6
Inside Diameter : DN 1000 x DN 900

Volume : 6.6 m³

Weight : 5740 kg (empty)
8336 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : YES

Spare Part :-

Gasket : 100 %
Bolt : 3% (min 2 sets)

Client :-

PETRONAS CARIGALI SDN.BHD.

Delivery :-

JUNE 2012

MSET ENGINEERING CORPORATION SDN. BHD.

KAWASAN PERINDUSTRIAN KERTEH, 24300 KERTEH, KEMAMAN, TERENGGANU, MALAYSIA.

TEL : +609-827 1777 FAX : +609-827 1871 EMAIL : msetec@mset.com.my WEBSITE : www.mset.com.my

CONCEPTUAL AND FRONT END ENGINEERING DESIGN SERVICES FOR SABAH OIL AND TERMINAL PROJECT

Portable PIG Receiver (R-1395)



General Specification :-

Design Code : Pipeline :ASME B31.4-2009
(Design Factor = 0.5)

Design Data : Design Pressure : 40 bar (G)
Design Temp : 65 °c

Material : Shell : Major - A 5/6 GR. 70n
Minor-API 5L x 65

Nozzle Flange : A 694 F 65

Nozzle Pipe :-

Size : Length : 8345.3
Inside Diameter : DN 1000 x DN 900
Thickness (minor) : 15.9t
Thickness (major) : 22.2t

Volume : 5.8 m³

Weight : 6821 kg (empty)
10909 kg (operating)

Special Requirement :-

PWHT : NO

NACE : NO

Impact Test : YES

Spare Part :-

Gasket : 100 %

Bolt : 3% (min 2 sets)

Client :-

PETRONAS CARIGALI SDN.BHD.

Delivery :-

JUNE 2012

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Kebabangan Gas & Condensate Receiver (R-2910)



General Specification :-

Design Code : Pipeline :ASME B31.8-2010
(Design Factor = 0.5)

Design Data : Design Pressure : 172 bar (G)
Design Temp : 65 °c

Material : Quick Opening : A 694 F 65
Closure

Shell API 5L x 65
Nozzle Flange : A 694 F 65
Nozzle Pipe :-

Size : Length : 12007
Inside Diameter : DN 700 x DN 600
Thickness (minor) : 27t
Thickness (major) : 31t

Volume : 3.4 m³

Weight : 10237kg (empty)
12251 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : YES

Spare Part :-

Gasket : 100 %
Bolt : 3% (min 2 sets)

Client :-

PETRONAS CARIGALI SDN.BHD.

Delivery :-

JUNE 2012

MSET ENGINEERING CORPORATION SDN. BHD.

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CONCEPTUAL AND FRONT END ENGINEERING DESIGN SERVICES FOR SABAH OIL AND TERMINAL PROJECT

Crude Export Launcher (L-3370)



General Specification :-

Design Code : Pipeline :ASME B31.4-2009
(Design Factor = 0.5)

Design Data : Design Pressure : 40 bar (G)
Design Temp : 65 °C

Material : Quick Opening : A 694 F 65
Closure

Shell : API 5L x 65
Nozzle Flange : A 694 F 65
Nozzle Pipe : API 5L GR.B

Size : Length : 8332.2
Inside Diameter : DN 900 x DN 600
Thickness (minor) : 12.7t
Thickness (major) : 11.9t

Volume : 4.7 m³

Weight : 3826 kg (empty)
6333 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : YES

Spare Part :-

Gasket : 100 %
Bolt : 3% (min 2 sets)

Client :-

PETRONAS CARIGALI SDN.BHD.

Delivery :-

JUNE 2012

MSET ENGINEERING CORPORATION SDN. BHD.

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CONCEPTUAL AND FRONT END ENGINEERING DESIGN SERVICES FOR SABAH OIL AND TERMINAL PROJECT

Kinabalu Gas & Condensate Receiver (R-2900)



General Specification :-

Design Code : Pipeline :ASME B31.8-2010
(Design Factor = 0.5)

Design Data : Design Pressure : 146 bar (G)
Design Temp : 65 °c

Material : Quick Opening : A 694 F 65
Closure

Shell : API 5L x 65
Nozzle Flange : A 694 F 65
Nozzle Pipe : API 5L GR.B

Size : Length : 12007
Inside Diameter : DN 700 x DN 600
Thickness (minor) : 22.2t
Thickness (major) : 27t

Volume : 3.5 m³

Weight : 7884 kg (empty)
9906 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : YES

Spare Part :-

Gasket : 100 %
Bolt : 3% (min 2 sets)

Client :-

PETRONAS CARIGALI SDN.BHD.

Delivery :-

JUNE 2012

MSET ENGINEERING CORPORATION SDN. BHD.

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CONCEPTUAL AND FRONT END ENGINEERING DESIGN SERVICES FOR SABAH OIL AND TERMINAL PROJECT

Portable Pig Receiver (R-3385)



General Specification :-

Design Code : Pipeline :ASME B31.4-2009
(Design Factor = 0.5)

Design Data : Design Pressure : 40 bar (G)
Design Temp : 65 °C

Material : Shell API 5L x 65
Nozzle Flange : A 694 F 65
Nozzle Pipe : -

Size : Length : 8173.97
Inside Diameter : DN 900 x DN 700
Thickness (minor) : 12.7t
Thickness (major) : 15.9t

Volume : 4 m³

Weight : 7832 kg (empty)
7307 kg (operating)

Special Requirement :-

PWHT : NO
NACE : NO
Impact Test : YES

Spare Part :-

Gasket : 100 %
Bolt : 3% (min 2 sets)

Client :-

PETRONAS CARIGALI SDN.BHD.

Delivery :-

JUNE 2012

MSET ENGINEERING CORPORATION SDN. BHD.

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