

**CERTIFICATES OF COMPETENCY IN THE MERCHANT NAVY –
MARINE ENGINEER OFFICER**

EXAMINATIONS ADMINISTERED BY THE
SCOTTISH QUALIFICATIONS AUTHORITY
ON BEHALF OF THE
MARITIME AND COASTGUARD AGENCY

STCW 95 SECOND ENGINEER REG. III/2 (UNLIMITED)

042-24 – ENGINEERING DRAWING

WEDNESDAY, 9 DECEMBER 2009

1300- 1700 hrs

Examination paper inserts:

Drawing Fig Q1

Notes for the guidance of candidates:

Candidates should attach their drawing to the examination workbook front sheet

Materials to be supplied by examination centres:

Drawing Board
Candidate's examination workbook
A2 Drawing Paper
Tee Square

ENGINEERING DRAWING

Attempt ALL parts of the questions

Marks for each part of the question are shown in brackets

1 Fig Q1 shows details of a Cooler Drain Valve.

(a) Draw TWICE FULL SIZE in THIRD ANGLE PROJECTION using the centreline positions shown in Fig Q1(a):

(i) a sectional elevation of the assembled valve in the closed position and viewed from Arrow A; (70)

(ii) an end elevation viewed from Arrow B. (10)

(b) Complete the drawing by adding the following:

(i) a parts list with the individual items clearly identified on the assembly drawing; (11)

(ii) a title; (1)

(ii) the projection symbol; (1)

(iii) the scale; (1)

(iv) six main dimensions of the assembled valve. (6)

The drawing should be in accordance with B.S 308:1993 and hidden details should be omitted.

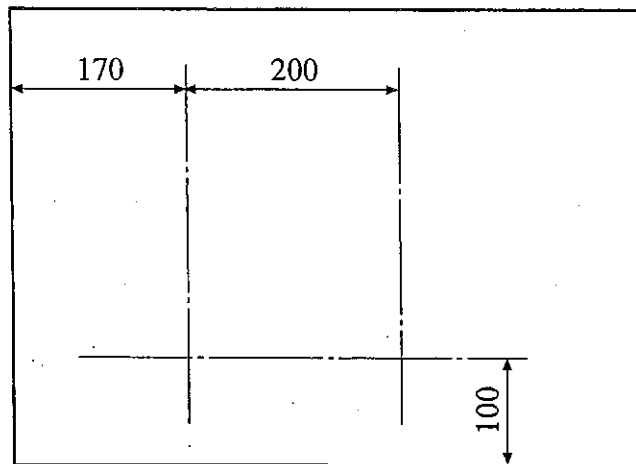
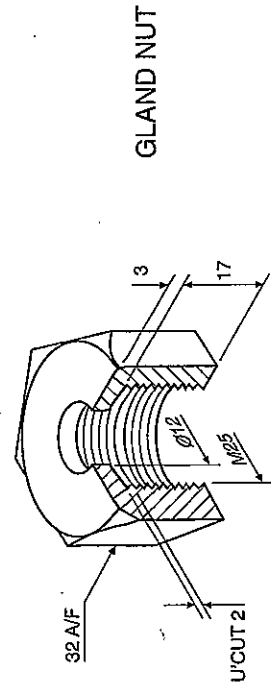
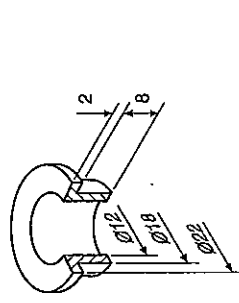


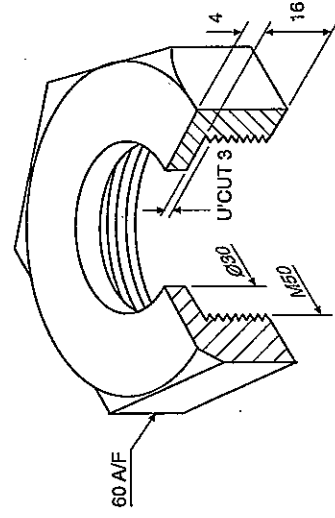
Fig Q1(a)



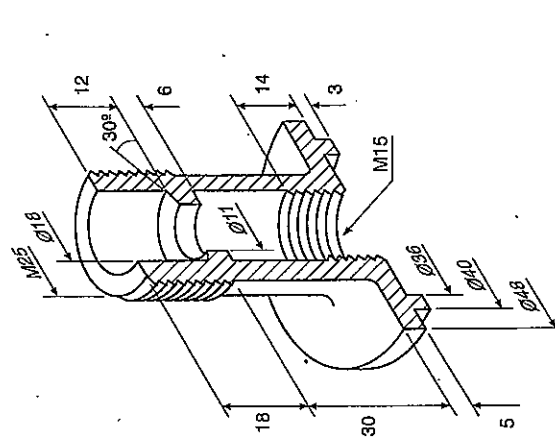
GLAND NUT



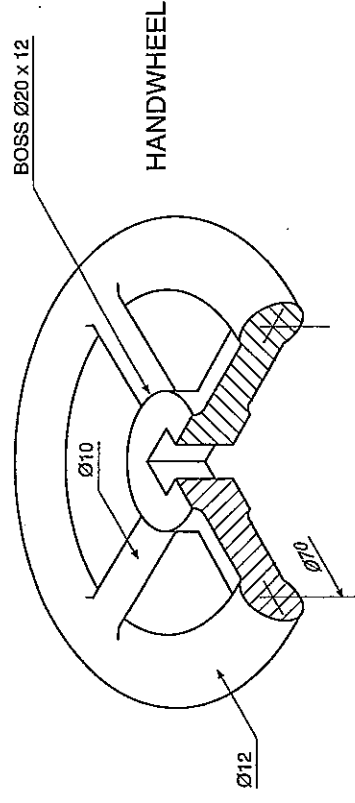
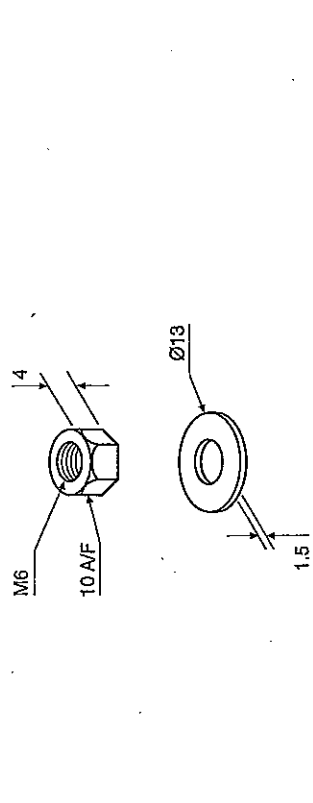
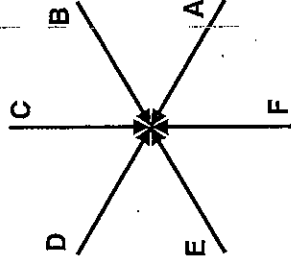
GLAND



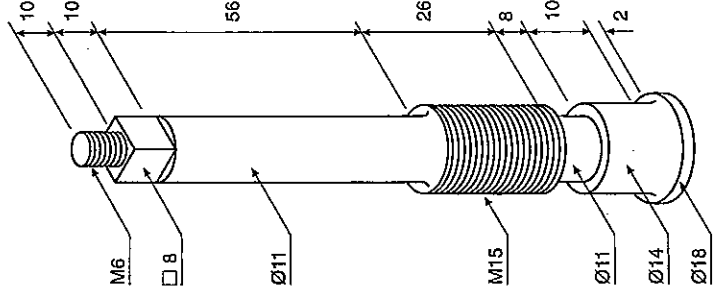
VALVE BODY NUT



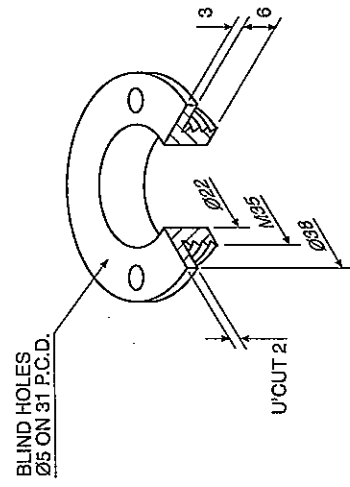
COVER



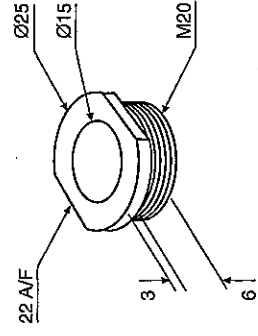
HANDWHEEL



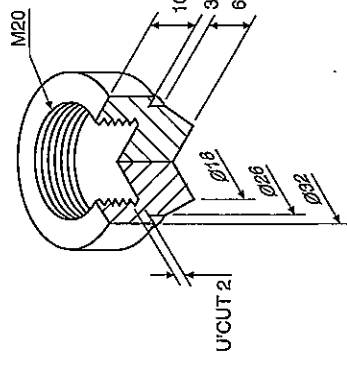
SPINDLE



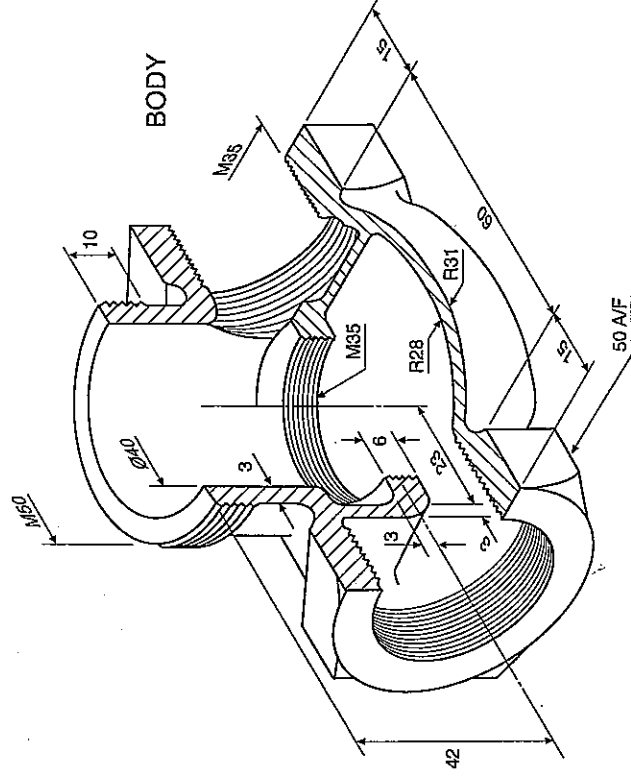
VALVE SEAT



LOCKNUT



VALVE



BODY

ALL ITEMS BRASS
UNSPECIFIED RADII AND DIMENSIONS ARE LEFT TO THE DISCRETION OF THE CANDIDATE

DECEMBER 2009	TITLE	ISOMETRIC
TS042 - 24	DETAILS OF COOLER	Dim. in mm
QUESTION 1	DRAIN VALVE	