

**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, 12 DECEMBER 2012**

**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 an auxiliary steam turbine THROTTLE CONTROL VALVE.
- (a) Draw FULL SIZE in FIRST ANGLE PROJECTION the following views of the assembled valve using the centre line positions as shown in Fig Q1(a):
- (i) an elevation viewed from ARROW F; (20)
  - (ii) a plan projected from (a)(i), viewed from ARROW A showing;
    - (1) the top half of the view in section on the centre line of the spindle; (45)
    - (2) the bottom half as an outside view. (12)

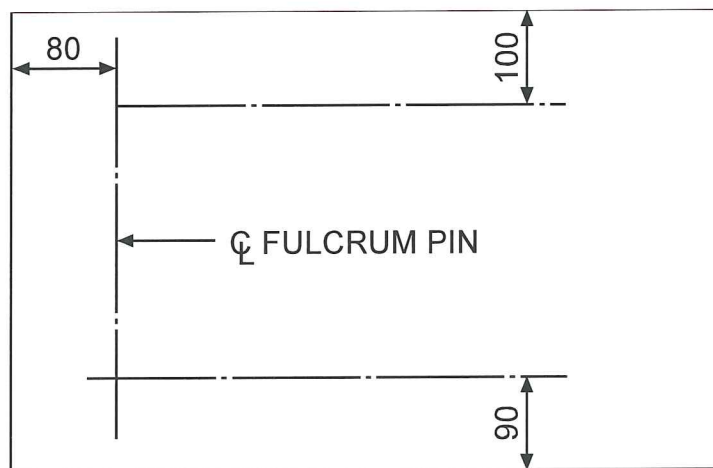
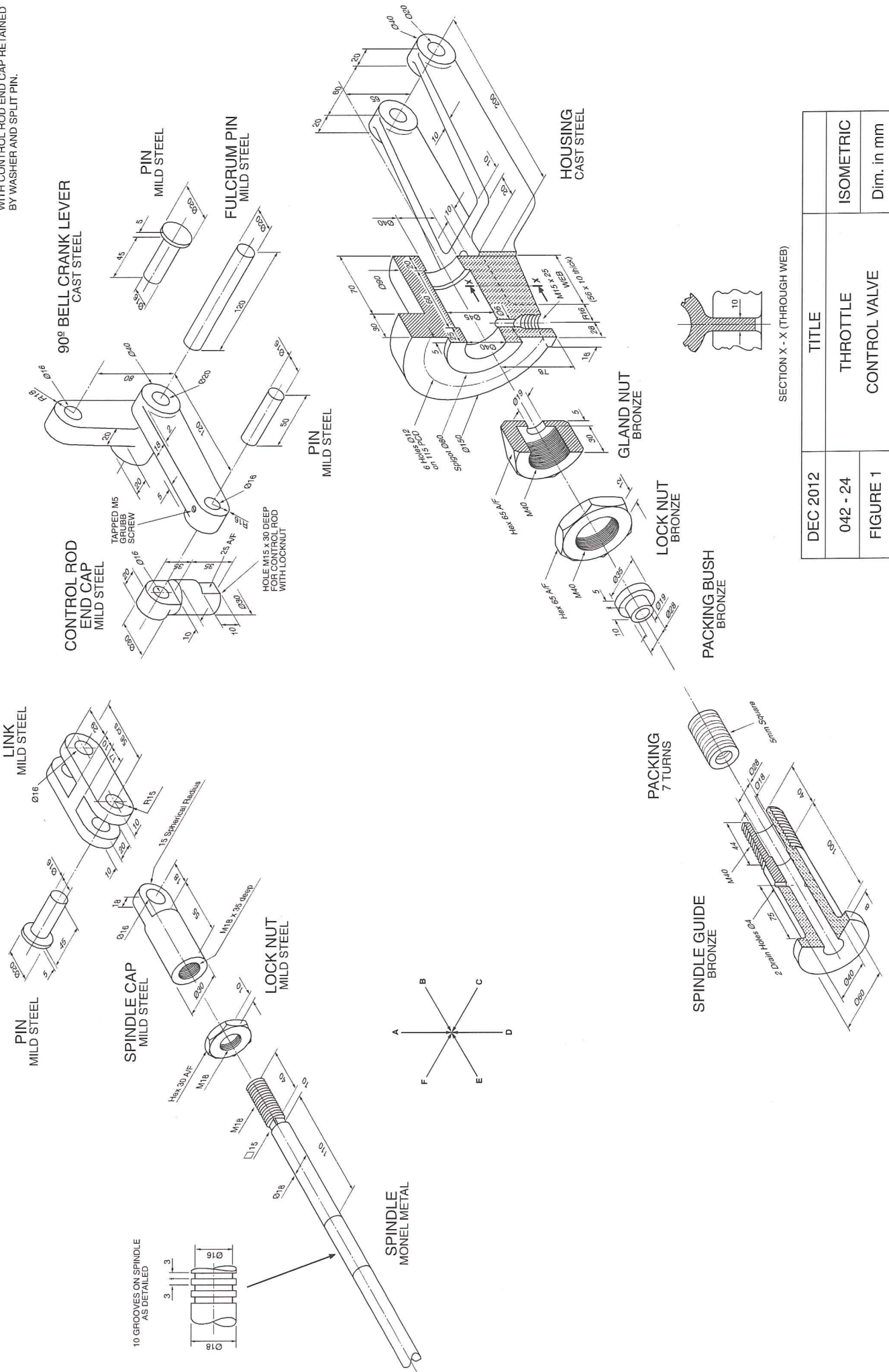


Fig Q1(a)

- (b) Complete the drawing by adding the following:
- (i) a parts list with the individual items clearly identified on the assembly drawing; (14)
  - (ii) a title and the scale; (2)
  - (iii) the projection symbol; (1)
  - (iv) SIX main assembled dimensions. (6)

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

LINK PINS AND FULCRUM PIN  
RETAINED BY WASHERS AND SPLIT PINS.  
CONTROL ROD PIN RETAINED BY GRUBB  
SCREW IN BELL CRANK LEVER ARM  
WITH CONTROL ROD END CAP RETAINED  
BY WASHER AND SPLIT PIN.



DEC 2012	TITLE	ISOMETRIC
042 - 24	THROTTLE CONTROL VALVE	Dim. in mm
FIGURE 1		