



नाम

Name : \_\_\_\_\_

अनुक्रमांक

Roll No : \_\_\_\_\_

पाठ्यक्रम

Course : \_\_\_\_\_

दिनांक

Date : \_\_\_\_\_

प्राप्तांक

Marks Awarded : \_\_\_\_\_

अनुदेशक के आद्यक्षर

Instructor Initial : \_\_\_\_\_

## DIRECT LEVER

### INTRODUCTION TO DIRECT LEVER:

A direct lever is so called because the lever is directly and rigidly connected to the rope drum. This connection is made by means of two hexagonal head nuts and  $\frac{1}{2} \times 2\text{-}5/8$  inches studs welded to the lever.

The rope drum is mounted on a standard on a standard through a main axle, which in turn is secured to the standard by means of a set screw. A catch handle is connected to the lever handle and from the bottom of the catch handle a link and spring are connected. A latch rod is connected to the bottom of the latch and the locking crank is connected to the bottom of the latch rod. The latch rod has lug, which normally in the quadrant notch, the quadrant itself being an integral part of the standard. As soon as the catch handle is pressed, the latch rod lug rises out of the quadrant notch and the lever is free to be operated. A projection is provided on the side of the latch rod to limit the stroke of the tappet. The tappet is connected to the locking crank, and the locking crank is held in position by means of a crank axle ring.

Direct levers are available as 20 inches (500mm) stroke and 24 inches (600mm) stroke levers, the variation being in the size of the rope. 20 inches stroke levers are used for transmission upto 1200 yards, while 24 inches stroke levers are used for transmission greater than 1300 yards. Direct lever are only used for those transmission which when obstructed or broken, do not leave the gear in an unsafe condition viz., signal transmission such as distant signal.

Direct levers are mounted on lever supporting channel in the cabin. The front channel has a vertical stud while rear channel has a horizontal stud. The lever standard has respectively a slot and hold for mounting on the se studs. Mechanical advantage of D.W. lever stroke of the lever handle (2125mm) divided by the displacement of wire rope drum (500mm or 600mm)

### ANSWER THE FOLLOWING?

1. First indicate the parts of the DIRECT LEVER sketch is attached.
2. The lever handle is connected \_\_\_\_\_ to the rope drum.
3. The drum is connected to the by means of \_\_\_\_\_

4. The rope drum is mounted on the standard through\_\_\_\_\_
5. As antification method to facilitate easy removal in case of wear and tear the rope drum has got\_\_\_\_\_
6. The standard is mounted on \_\_\_\_\_
7. The front lever supporting channel contains\_\_\_\_\_
8. The rear lever supporting channel contains\_\_\_\_\_
9. All levers in \_\_\_\_\_ frame are \_\_\_\_\_ units, capable of removing without disturbing other units.
10. The catch handle spring terminates on a projection in the \_\_\_\_\_
11. The \_\_\_\_\_ is connected to the catch handle through\_\_\_\_\_
12. The latch connected to \_\_\_\_\_ as it.
13. The crank is held in its position by means of \_\_\_\_\_ fitting into the groove crank axle.
14. The other arm of the crank is connected to\_\_\_\_\_
15. The latch rod projection seats in the notch provided in the \_\_\_\_\_
16. The above arrangement prevents operation of lever unless\_\_\_\_\_.
17. When the catch handle is pressed with lever normal:
  - a. The latch rod moves\_\_\_\_\_
  - b. The tappet moves \_\_\_\_\_
18. When the catch handle is released in reverse position:
  - a. The latch rod moves \_\_\_\_\_
  - b. The tappet moves by \_\_\_\_\_.
19. When the catch handle is pressed with lever reverse:
  - a. The latch rod moves by\_\_\_\_\_
  - b. The tappet moves by\_\_\_\_\_
20. When the catch handle is released with lever normal:
  - a. The latch rod moves by\_\_\_\_\_
  - b. The tappet moves by \_\_\_\_\_
21. The stroke imported to tappet when:
  - a. Catch handle is pressed \_\_\_\_\_
  - b. Catch handle is released\_\_\_\_\_
22. The stroke of the tappet is limited by the projection is\_\_\_\_\_
23. The total stroke imported to the tappet\_\_\_\_\_
24. In the figure indicated pull and return wire connection:

25. Circumference of 20 inches stroke lever drum (500mm):

24 inches stroke lever drum (600mm):

26. Radius 20 inches stroke lever drum(500mm):

24 inches stroke lever drum(600mm):

26. Length of the lever handle as measured from the center of the rope drum\_\_\_\_\_.

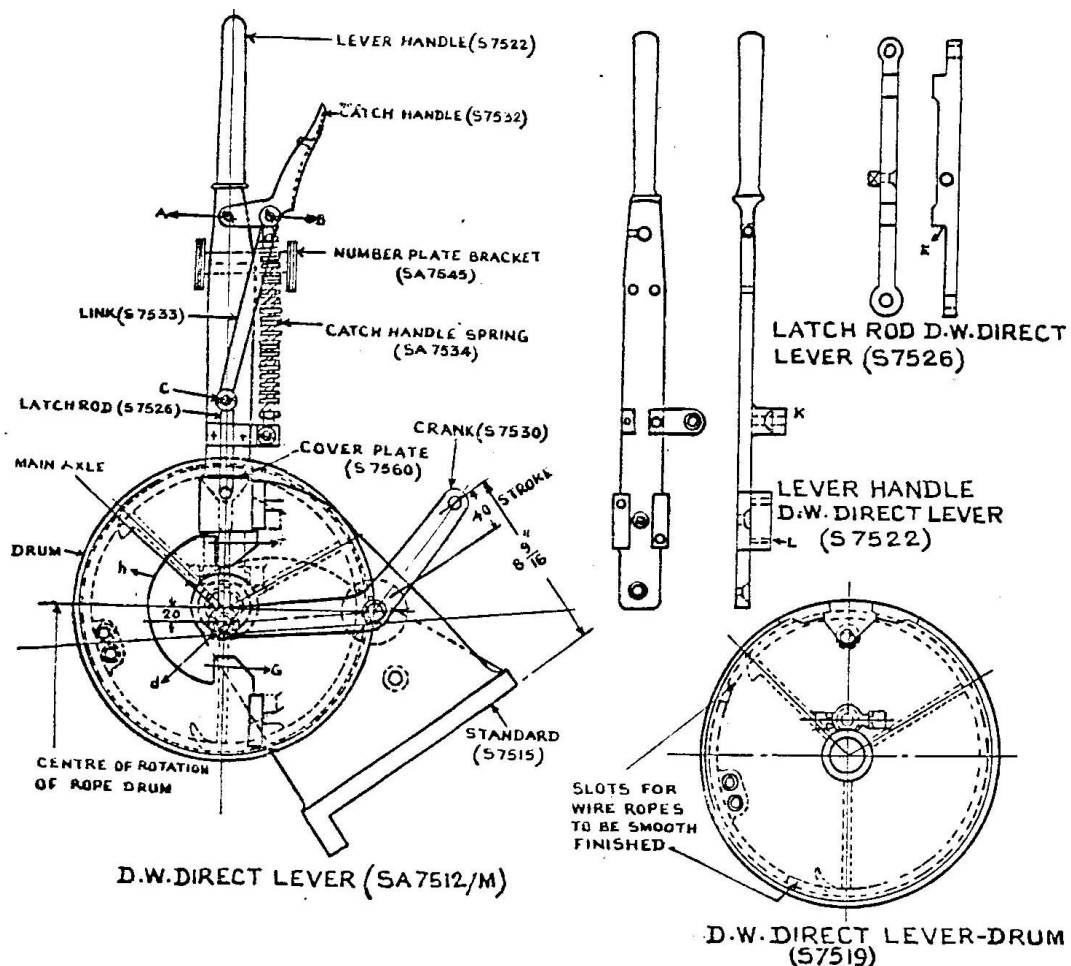
27. MA for 20 inches (500mm) stroke drum:

24 inches (600mm)stroke drum:

28. Direct lever can be used for transmission:

29. Range of operation of 20inches(500mm):

30. Range of operation of 24inches (600mm):



Date;

Signature of trainee