

**A) MARKING OF TANK BOTTOM BASE PLATE.**

- 1. AFTER THE TANK, BOTTOM PLATES ARE PLACED AND WELDED, MARK THE TANK CIRCUMFERERENCE, WHERE THE SHELL PLATES ARE TO BE PLACED / ERECTED.**
  
- 2. NUMBER OF JACKS TO BE INSTALLED TO BE DECIDED CONSIDERING TANK WEIGHT & LOCAL CONDITION, WIND VELOCITY ETC.**

**AFTER MARKING THE BASEPLATE OF TANK, MARK THE TRUSTLE - BASEPLATE OF JACK, 125 TO 130 MM FROM CIRCUMFERENCE OF THE TANK - BASEPLATE. ( PLEASE REF. FIG. - 2) DEPENDING ON TANK DIAMETER.**

### **3. TRUSLE BASE PLATE :-**

- JACK BASEPLATE TO BE WELDED AS SHOWN IN **FIG-2.**
- NOTE: WELDING SHOULD NOT TO BE DONE FACING TOWARDS TANK SHELL (**SIDE AB IN FIG:2**).
- BUT WELDING TO BE DONE UPTO 1 NCH AS SHOWN IN **FIG-2.**

**B) FIXING OF TRUSTLE BASEPLATE TO TRUSTLE - BOX JACK,LOADING POINT,SLIDING CHAIR AND LIFTING ARM - ASSEMBLY SET, STAY PIPES ( 2 NOS ), UPPER LUGS (2 NOS), LOWER LUGS (2 NOS), (REF : FIG – 4).**

**4. TRUSTLE BOX ( KEEP HORIZONTAL ON THE GROUND )**

AFTER WELDING ALL THE **TRUSTLE BASE PLATE** TO THE **BOTTOM PLATE** OF THE TANK, FIX THE **TRUSTLE-BOX (SRL NO:4)** TO THE TRUSTLE BASE PLATE.

**5.** AFTER FIXING THE TRUSTLE BOX TO JACK BASEPLATE AND TRUSTLE BOX WITH HELP OF NUT AND BOLT  $\frac{3}{4}$  INCH X 6 INCH LONG (ALREADY PROVIDED ).

**6. JACK :-**

AFTER FIXING THE **TRUSTLE BOX**, SLIDE THE **JACK (SRL NO: 6)** ( JACK HANDLE SHOULD BE KEPT IN OPEN CONDITION - TAG IS PROVIDED SHOWING OPEN/CLOSE POSITION) .

**7. LOADING POINT:-**

AFTER FIXING **JACK** SLIDE THE **LOADING POINT (SRL NO: 7)** TO TRUSTLE BOX .

NOTE: LOADING POINT ONE SIDE IS FLAT AND OTHER SIDE IS TAPER/DEGREE,NOTE THE TAPER SIDE SHOULD FACE THE JACK.

**8. LIFTING ARM, SLIDING CHAIR ASSEMBLY :-**

AFTER SLIDING THE LOADING POINT, SLIDE THE LIFTING ARM WITH SLIDING CHAIR ASSEMBLY( SRL NO : 8) INTO THE TRUSTLE BOX- IF ITS TIGHT THEN SLIGHTLY LOOSEN THE NUT AND BOLT PROVIDED ON THE ASSEMBLY.

9. ON TRUSTLE BOX DIA 26 MM THROUGH HOLE IS PROVIDED, PUT 1 INCH X 400 LONG STUD. ( STUD-ALREADY PROVIDED ).

**10. UPPER LUGS :-**

SLIDE **UPPER LUGS (SRL NO : 10)** ON EITHER SIDE ON 1 INCH X 400 LONG STUD AND TIGHTEN WITH 1 INCH NUT (PROVIDED).

11. FIXING OF STAY PIPES - 2 NOS (**SRL NO: 11**) TO UPPER LUGS. INSERT THE STAY PIPE END-FLAT INTO THE UPPER LUGS WITH THE HELP OF  $\frac{3}{4}$  INCH X 2.5 INCH LONG NUT AND BOLT AND TIGHTEN IT.

**NOTE:-**

A) CARE SHOULD BE TAKEN DURING INSERTING THE STAY PIPE. NOTE THERE IS A HOLE ON STAY PIPE,THE HOLE SHOULD BE AT THE BOTTOM SIDE.

B) THREADS PROVIDED ON BOTH ENDS OF STAYPIPE SHOULD BE AT LEAST 8-10 NOS(APPROX 25 MM) THREAD IN OPEN-OUT CONDITION.

**12. LOWER LUGS :-**

FIX THE LOWER LUGS AT THE BOTTOM OF THE STAY PIPES.WITH HELP OF ¾ INCH BSW X 2.5 INCH LONG NUT AND BOLT AND TIGHTEN IT.

- 13.** AFTER ASSEMBLING THE ABOVE COMPLETE ITEMS,SLOWLY AND STEADILY KEEP ALL THE JACKS IN VERTICAL POSITION,WELD THE LOWER LUGS.

**NOTE:-**

BEFORE WELDING THE LOWER LUGS TO THE TANK BOTTOM PLATE,PLEASE CHECK THE DISTANCE BETWEEN THE STAY PIPES. (**REF FIG : 5**). PLEASE NOTE FROM THE CENTRE DISTANCE OF THE STAY PIPES SHOULD NOT BE MORE THAN 1100 MM TO 1250 MM ,BUT LESS WILL DO,AND THE DISTANCE SHOULD BE EXACTLY EQUAL ON EITHER SIDE.

- 14. REFER FIG: 5 A,**TO KNOW THE TYPE/KIND OF WELDING TO BE DONE ON LOWER LUGS TO TANK BOTTOM PLATE.

NOTE: WELDING TO BE DONE ON CORNERS OR COMPLETE DEPENDING ON THE WEIGHT OF THE TANK OR LOWER LUGS TO NOT MORE THAN 2 INCH.

- 15.** REFER FIG: 6 TO KNOW HOW TO FIX NEEDLE VALVE ASSEMBLY TO ELBOW AND “T” CONNECTOR.

16. AFTER ERRECTING THE JACK TRUSLE IN VERTICAL POSITION,CHECK THE PERPENDICULARITY WITH RESPECT TO THE TANK BOTTOM PLATE.WITH THE HELP OF STAY PIPES (ROTATING CLOCKWISE/ANTICLOCKWISE-HOLE PROVIDED ON STAY PIPE) ADJUST TO ACHIEVE PERPENDICULAR .

NOTE: CHECK ONLY TWO SIDES I.E. FRONT AND SIDE. THE JACKING SET IN ASSEMBLED CONDITIONAS DESCRIBED ABOVE IS SHOWN IN FIG:1.

17. AFTER SETTING TO PERPENDICULAR OF ALL THE JACKS / TRUSTLE BOXES ETC.

FIX THE HOSES ( 2.5 MT LONG - PROVIDED ) TO THE JACKS.

INTERCONNECT ALL THE JACKS WITH 2.5 MTR HOSES WITH THE HELP OF ½ INCH HOSE ADAPTORS ( ADAPTOR PROVIDED ). COMPLETE THE ENTIRE HOSE CIRCLE USING “ T ” .

AFTER COMPLETING THE CIRCLE, DEPENDING UPON THE DIAMETER OF THE JACK- TAKE OUT THE LINE (HOSE) 4,6 OR 8 POINTS WITH THE HELP OF “ T ” CONNECTION – CONNECT TO 5 OR 8-WAY BLOCK PROVIDED AND OTHER CONNECTION TAKE OUT TO HYDRAULIC POWER PACK.

18. FILL THE OILTANK WITH HYDRAULIC OIL ENKLO-68 OR EQUIVALENT. START THE POWERPACK SWITHCHING ON THE ELECTRIC MOTOR. ENSURE THE DIRECTION, AS SHOWN BY ARROW ON THE ELECTRIC MOTOR.

**19.**AFTER CHECKING THE MOTOR ROTATION, CLOSE ALL THE NEEDLE VALVES OF THE JACKS, IF THEY ARE NOT CLOSED, THEN CLOSE THEM. MAKE POWERPACK PRESSURE TO “**ZERO**”.

START THE MOTOR AND GIVE PRESSURE AND TIGHTEN THE JOINTS.

IF ANY LEAKAGE OF OIL. AFTER ARRESTING THE LEAKAGE, INCREASE THE PRESSURE WITH THE HELP OF RELIEF VALVE (BG-03) SLOWLY UPTO 80 TO 100 BAR AND SET IT.

AFTER SETTING THE PRESSURE, OPEN ALL THE JACK NEEDLE VALVES.

NOTE: DO NOT OPEN THE NEEDLE VALVES FULLY, OPEN ONLY UPTO 5 TO 8 TURNS.

## **PROCEDURE TO LIFT THE TANK**

20. AFTER OPENING THE NEEDLE VALVES, PUSH THE HAND LEVER VALVE (SRL NO 14-FIG:7) AND GIVE PRESSURE.

NOW, ALL THE JACKS STARTS MOVING, KEEP IN PRESSED CONDITION, UNTIL THE GAUGE SHOWS THE READING UPTO 80-100 BAR (SET PRESSURE).

AFTER REACHING SET PRESSURE, RELEASE THE HAND LEVER VALVE ( NEUTRAL POSITION ).

NOW, OPEN THE BALL SHUT OFF VALVE SRL NO 18 (ON POWERPACK) SLOWLY TO "ZERO" PRESSURE.

ABOVE PROCEDURE SHOULD BE DONE REPEATEDLY. FOR NEXT LIFT.

PLEASE ENSURE THAT ALL THE PISTONS OF THE JACKS ARE INSIDE, ONLY AFTER ENSURING THAT ALL THE PISTONS ARE INSIDE, THEN ONLY GIVE COMMAND TO NEXT LIFT.

AFTER 10 TO 12 LIFTS- PLEASE CHECK THE LEVEL OF THE TANK PLATE AND ENSURE THAT LEVEL DIFFERENCE SHOULD NOT BE MORE THAN 50 MM.

IF THE LEVEL IS MORE THAN 50 MM, CLOSE THE NEEDLE VALVE OF THAT AREA AND GIVE LIFT.

**PROCEDURE TO LOWER THE TANK :**

FIRST OPEN BOTH “**LOWER LOCK-LEVERS**” OF ALL THE JACKS AND ALSO NEEDLE VALVES.

**NOTE :** UPPER LOCKS (BOTH) ARE IN CLOSED CONDITION. WITH THE HELP OF POWER PACK GIVE PRESSURE AND FLOW TO ALL THE JACKS.

ENSURE OIL IN THE TANK AND ELECTRIC MOTOR ROTATES AS PER ARROW PROVIDED ON THE ELECTRIC MOTOR.

AFTER GIVING THE PRESSURE, ALL THE JACKS START MOVING AND PISTON ROD COMES OUT. DO NOT RELEASE THE PRESSURE

NOW, CLOSE “ **BOTH LOWER LOCK-LEVERS**” OF ALL THE JACKS AND ALSO “ **NEEDLE VALVES**”.

OPEN THE BALL SHUT OFF VALVE OF POWER PACK AND RELEASE THE PRESSURE.LET THE BALL VALVE BE IN OPEN CONDITION ONLY.

NOW, OPEN NEEDLE VALVE OF ONE JACK SLOWLY AND LET THE PISTON OF THAT COME IN ATLEAST UPTO 20 MM.AND CLOSE THE NEEDLE VALVE.

REPEAT ABOVE PROCEDURE FOR ALL THE JACKS.  
AFTER ENSURING, ALL JACKS-PISTONS HAVE COMPLETED UPTO 20 MM STROKE, CLOSE ALL THE NEEDLE VALVES OF THE JACKS AND GIVE THE PRESSURE WITH HYDRAULIC POWERPACK. NOW, OPEN ALL THE NEEDLE VALVES. AFTER OPENING THE NEEDLE VALVES GIVE THE PRESSURE AGAIN WITH POWERPACK. GIVE THE PRESSURE UNTIL THE GAUGE SHOWS THE SET PRESSURE. NOW DO NOT RELEASE THIS PRESSURE. NOW, OPEN THE LOCK OF TOP SIDE OF THE JACKS. AFTER OPENING ALL THE TOP SIDE OF LOCKS, SLOWLY RELEASE THE PRESSURE WITH THE HELP OF BALL SHUT OFF VALVE (PROVIDED ON POWER PACK). NOW ALL THE JACKS SIMULTANEOUSLY START LOWERING AND PRESSURE STARTS COMING DOWN ON PRESSURE GAUGE AND COMES TO "0" PRESSURE. THEN CLOSE THE BALL VALVE ON POWER PACK AND ALSO CLOSE ALL THE NEEDLE VALVES OF THE JACKS.

NOW, START HORIZONTAL FIT-UP OF THE TANK, AFTER FIT-UP, START WELDING OUTSIDE OF THE TANK. AFTER OUTSIDE WELDING COMPLETION, OPEN THE BALL VALVE AND RELEASE THE PRESSURE.

OPEN THE NEEDLE VALVE OF ALL THE JACKS. NOW, ALL THE JACKS WILL GET FREE.