FABRIX · DECK FABRICATION JOB CARD

Deck P2A1

Job card 3026001-JB-001 · 1,342 master weld rows

DRAFT — NOT ENGINEER-VERIFIED

Generated 2026-11-20 03:38

fabrix.jobcards.calc/1 · fabrix.jobcards.rates/1

Document deck-P2A1-draft

Job card reference	3026001-JB-001
Deck	P2A1
Master table	master-table.csv
Master rows	7,959
Part list	part-list.csv
Part-list rows	1,421
Steel weight (input)	not recorded
Part-list weight (cross-check)	28.464 t
Calculation rules	fabrix.jobcards.calc/1
Rate tables	fabrix.jobcards.rates/1

CODE	OPERATION AND CALCULATION	QUANTITY	RATE	HOURS	BASIS
HANDLING				**69.5**	
H1	Small plates (15 kg and above) and secondary steel 0.25 MH/piece × 179 pieces	179 pieces	0.25	44.75	FORMULA-CALCULATED
H2	Primary members 0.75 MH/piece × 33 pieces	33 pieces	0.75	24.75	FORMULA-CALCULATED
H3	Heavy members and girders 1.5 MH/piece × 0 pieces	0 pieces	1.5	0	FORMULA-CALCULATED
H4	Major assemblies and large fabrications 2.5 MH/piece × 0 pieces	0 pieces	2.5	0	FORMULA-CALCULATED
LIFTING				**0**	
MS-1	Small pancake lift 50 MH/lift × 0 lifts	0 lifts	50	0	WORKBOOK-SUPPLIED
MS-2	Medium deck lift 75 MH/lift × 0 lifts	0 lifts	75	0	WORKBOOK-SUPPLIED
MS-3	Large deck lift 125 MH/lift × 0 lifts	0 lifts	125	0	WORKBOOK-SUPPLIED
MS-4	Heavy alignment lift 175 MH/lift × 0 lifts	0 lifts	175	0	WORKBOOK-SUPPLIED
MS-5	Critical lift 225 MH/lift × 0 lifts	0 lifts	225	0	WORKBOOK-SUPPLIED
SCAFFOLDING				**0**	
SC2 - erection	Single working lift - erection 1.4 MH/m × missing m	— m perimeter	1.4	—	WORKBOOK-SUPPLIED
SC2 - dismantle	Single working lift - dismantle 0.6 MH/m × missing m	— m perimeter	0.6	—	WORKBOOK-SUPPLIED
PLATE CUTTING				**40.69**	
Manual	Manual plate cutting 0.54 h/m × 75.36 m (Σ length × plate cuts, 1342 master rows)	75.3601 linear metres	0.54	40.69	FORMULA-CALCULATED
BEAM CUTTING				**249.5**	
Manual	Manual beam cutting 0.54 h/m × 462.043 m (Σ length × profile cuts, 1342 master rows)	462.0432 linear metres	0.54	249.5	FORMULA-CALCULATED
WELDING				**562.32**	
SM-2	SMAW - General weld metal 0.00981 h/cm³ × 294.06 cm³	294.06 cm³ of weld metal	0.00981	2.88	FORMULA-CALCULATED
SM-3	SMAW - Secondary weld metal 0.01308 h/cm³ × 17329.835 cm³	17,329.8345 cm³ of weld metal	0.01308	226.67	FORMULA-CALCULATED
SM-4	SMAW - Stiffeners weld metal 0.01963 h/cm³ × 14088.92 cm³	14,088.9201 cm³ of weld metal	0.01963	276.57	FORMULA-CALCULATED

CODE	OPERATION AND CALCULATION	QUANTITY	RATE	HOURS	BASIS
FC-2	FCAW - General weld metal 0.00714 h/cm³ × 7870.356 cm³	7,870.3556 cm³ of weld metal	0.00714	56.19	FORMULA-CALCULATED
FITTING				**2,683.06**	
FF2	Flat plate - Assembly 2.5 MH/m × 4.5448 m	4.5448 linear metres	2.5	11.36	FORMULA-CALCULATED
FF5	Girders & profiles - Assembly 5.5 MH/m × 339.9243 m	339.9243 linear metres	5.5	1,869.58	FORMULA-CALCULATED
FF8	Stiffeners - Assembly 5.76 MH/m × 139.2553 m	139.2553 linear metres	5.76	802.11	FORMULA-CALCULATED
CALCULATED OPERATION HOURS				**3,605.07**	

Beam cutting — laser	0
Beam cutting — manual	249.5
Plate cutting — CNC	0
Plate cutting — manual	40.69
Cutting subtotal	290.2
Fitting	2,683.06
Welding	562.32
Handling	69.5
Lifting	0
Scaffolding (erection + dismantle)	0
General handling (10% of the hours above except handling)	353.56
Total planned hours	**3,958.63**

Weld volume deposited	39,583.17 cm³
Weld metal weight	310.73 kg
Weld hours	562.32 h
Welding shifts (10 h)	56.23
Weld metal per shift	5.526 kg
Deck steel weight	not recorded
Man-hours per tonne	–
Per tonne: cutting	–
Per tonne: fitting	–
Per tonne: welding	–

ASSUMPTIONS

- 145 part-list pieces are category "NA" and carry no handling allowance, matching the workbook's Handling Pivot (the NA column is not used by any deck sheet).
- All productivity rates are transcribed from the company sample workbook and have not been verified by an engineer in FABRIX. Replace them with the released company rate sheet before shop-floor use.

ENGINEERING FLAGS

- Weld volume uses one triangular rule (0.5 × t² × L) for every joint type. CJP: 13525.8 cm³, Partial: 33.6 cm³ are groove/joint-penetration welds whose metal volume is not a triangle of leg t; the figure is a workbook approximation requiring engineering verification.
- 4 rows are labelled "Partial" welds and still receive the full-thickness triangle volume.

WARNINGS

- Scaffolding perimeter is missing; scaffolding hours are not calculated.
- Deck steel weight is missing; man-hours per tonne cannot be calculated.
- Scaffolding perimeter is not recorded for this deck.
- No lifting operations are recorded for this deck.

RECONCILIATION WITH THE REFERENCE WORKBOOK

55 exact · 0 within tolerance · 17 discrepancies

Computed by the FABRIX deterministic job-card engine; no spreadsheet is evaluated at runtime. Productivity rates are transcribed from the company sample workbook 3026001-JB-001 and have not been released or verified by an engineer — this sheet is a draft calculation, not a shop-floor instruction.

Raw master rows are not stored in the browser workspace; only aggregated deck quantities and manual inputs persist, so re-import the source file to audit individual welds. No assembly illustration is printed: the supplied IFC export carries no deck identifiers and cannot be tied to this card without guessing.