

Title: Goods Office Yard – Enabling Works Methodology

1. Introduction

This document outlines the methodology for the enabling works at *Goods Office Yard*, with a primary focus on the controlled excavation of a trial pit running from west to east across the site. Given the presence of structural arches beneath the working area, strict measures will be taken to ensure no damage or uneven loading occurs during the works.

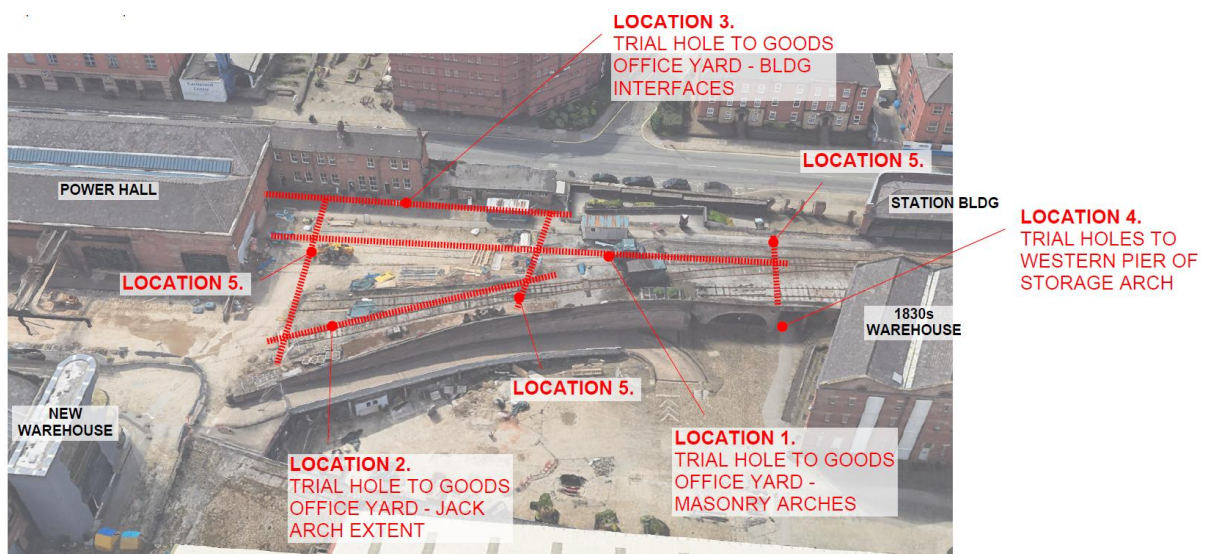
2. Scope of Works

The enabling works:

- Controlled excavations/trial holes in several locations detailed below.
- Strips/trial holes no wider than 1.25m x 1.25m
- Protection and load management over existing arches.
- Survey and tagging of rail lines above.
- Mapping of all rail assets onto a coordinated drawing.
- Removal of rails where required.
- Adoption of machinery and constraints as used in Viaduct Phase 1.

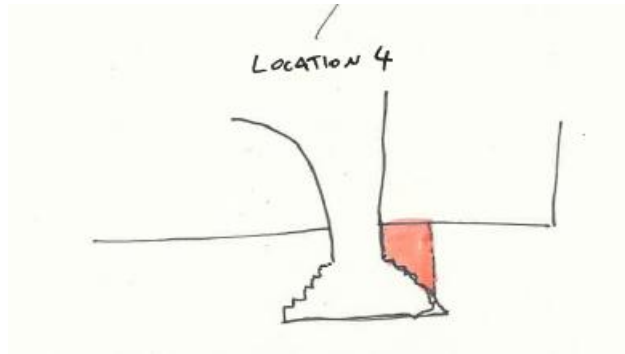
3. Methodology

3.1 Extent of works for locations 1-3 & 5:



- Strips/trial holes to be **no wider than 1.25m x 1.25m**
- At all times, excavation will be balanced to maintain **equal loading across all arches**.
- Continuous visual monitoring and level checks will be undertaken to verify uniform progress.
- Due to the listed status, if anything of archaeological interest is uncovered all works will be ceased until the relevant parties have reviewed.

3.1.1: Location 4



- Methodology generally as per above.
- Trial pits to be placed anywhere along western pier, both inside & outside faces. Depth of trial pits will be determined on site to suit the depths of foundations.

3.2 Load Management Over Arches

- The arches beneath are assumed to have the **same loading constraints** as those considered in Viaduct Phase 1.

 ☐ 1	STATION VIADUCT BALLAST REMOVAL NEEDS TO BE CAREFULLY CONSIDERED TO ENSURE THAT THE UNDERLYING ARCHES ARE NOT SUBJECT TO UNBALANCED LOADING. CONTRACTOR TO DEVELOP A PROPOSAL AND METHOD STATEMENT OF WORK SEQUENCING.
 ☐ 2	THE STORAGE ARCH (DIRECTLY ADJACENT TO CONCRETE BRIDGE) IS ANTICIPATED TO BE USED AS PART OF SITE TRAFFIC ROUTE. THIS ARCH IS KNOWN TO BE DEFECTIVE WITH REDUCED LOAD-CARRYING CAPACITY. THE FOLLOWING RESTRICTIONS ARE IMPOSED FOR THE DURATION OF THE WORKS: 1. THE SPEED OF VEHICLES SHOULD BE RESTRICTED TO A MAXIMUM OF 5MPH. 2. ASYMMETRIC LOADS OR POINT LOADS SHOULD NOT BE APPLIED DIRECTLY TO THE EXISTING ARCH EXTRADOS. 3. SUITABLE LOAD DISTRIBUTION MUST BE PLANNED IF THE BALLAST AND FILL OF THE ARCH IS STRIPPED. 4. A STRICT LOAD FREE ZONE (≤5KN/M ²) WITHIN THE DISTANCE D OF AN ANGLE OF 45° FROM THE PIER OF THE NORTH SPANDREL WALL (D = CA. 3.5M CONSIDERING THE RISE OF THE ARCH). 5. A GENERAL LIMITATION OF A UNIFORMLY DISTRIBUTED LOAD OF 17KN/M ² OR AXLE LOAD OF 115KN/AXLE. 6. A MONITORING REGIME IS UNDERTAKEN WHILE RUNNING WORKS TO MAKE SURE THAT NO CRITICAL DISPLACEMENTS OCCUR.

- Only pre-approved machinery from Viaduct Phase 1 will be used to **avoid overloading**.
- No stockpiling of material or plant movements will be permitted directly above or adjacent to sensitive arch locations.

3.3 Rail Survey, Tagging and Removal where required



- All rail lines above the arches will be surveyed and locations recorded
- Each rail line will receive a **bespoke identity tag**, securely attached and clearly labelled on site.
- The location of each tagged line will be **accurately plotted onto a coordinated CAD drawing** for permanent record and future reference to aid with design.
- **Rail removal** will be carried out in accordance with the approved Lifting Plan and Risk Assessment.

4. Health, Safety, and Environmental Considerations

- All works will comply with **CDM 2015 Regulations**.
- Detailed **RAMS** provided prior to commencement of works. **(See Appendix 2)**
- Detailed lifting plans for tracks below and over 5m. **(See Appendix 3 & 4)**
- **Site briefings** and toolbox talks will reinforce the importance of load balance and structural sensitivity to all operatives involved in enabling works.
- **CAT scan/survey** to be carried out prior to any excavations, to check for existing live services.
- All excavations will be on a PTW basis.
- Work will be stopped immediately if there are signs of movement/damage to the arches.
- HHS are assuming the monitoring of arch 8 is to continue. BHE to confirm the methodology of monitoring if changes or additional arches to be monitored during enabling works.

5. Plant and Equipment

- Only machinery approved for use during **Viaduct Phase 1** will be deployed. These vehicles have been tracking over this area for the last 12 months. **(See attached appendix 1 of previously approved/used machinery)**
- This includes excavators and manual tools where necessary.
- All plant will be inspected and approved by the site manager prior to commencement of works

6. Programme and Coordination

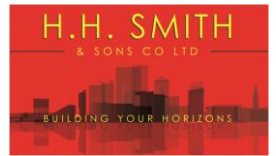
- The enabling works are expected to take approximately circa 12 weeks pending ground conditions.



- A site engineer/manager will oversee excavation sequencing and survey activities.
- Regular visits from design team members during the enabling works to monitor progress/review findings.
- Regular coordination meetings will be held to update progress and assess any structural concerns.

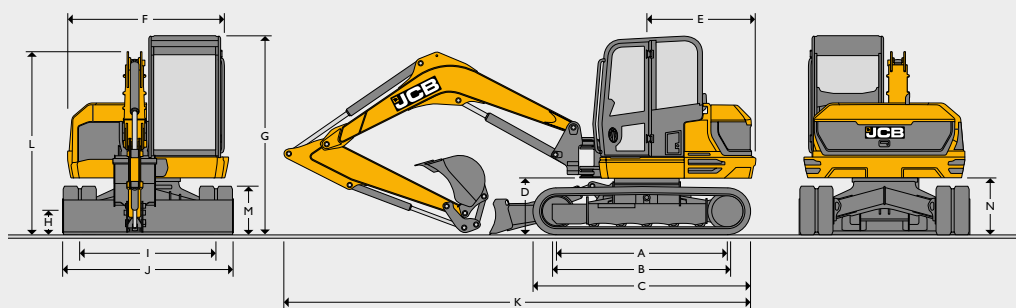
7. Conclusion

These enabling works are critical to providing information for the design team to finalise project design/scope. Strict adherence to the methodology will mitigate risks to the existing arch structures and ensure the works progress without incident.



Appendix 1: Plant Specs

STATIC DIMENSIONS



Machine model		85z-2	86c-2	86c-2 TAB	90z-2	100c-2
A	Sprocket idler centres	mm		2325		
B	Track length on ground	mm		2325		
C	Undercarriage overall length – rubber	mm		2950		
	Undercarriage overall length – steel			2900		
D	Kingpost clearance	mm		793		
E	Tailswing radius	mm	1145	1490	1600	1145 1601
F	Overall width of superstructure	mm	2168	2187		2187
G	Height over cab	mm		2706		
H	Ground clearance	mm		350		
I	Track gauge	mm		1850		
J	Width over tracks (450 shoes)	mm		2300		
K	Transport length with standard dipper	mm	5833	6435	6655	6585 6860
L	Transport height with standard dipper	mm		2706		
M	Track height	mm		650		
N	Counterweight clearance	mm		762		

ENGINE

Machine model		85z-2	86c-2	86c-2 TAB	90z-2	100c-2
Model				Stage V KDI 2504 TCR		
Fuel				Diesel		
Cooling				Water cooled		
Gross power ISO 14396	kW (hp) @ 2200 rpm		48		55	
Net power	kW (hp) @ 2200 rpm		45.4		52.4	
Gross torque ISO 14396	Nm @ 1500 rpm			305		
Displacement	cc / litres			2500		
Gradeability	degrees			30		
Starter motor	kW (hp)			3.2		
Battery	volt / Ah			12V, 750		
Alternator	volt / amps			12V, 100		

UNDERCARRIAGE

Machine model		85z-2	86c-2	86c-2 TAB	90z-2	100c-2
No of top rollers				1		
No of bottom rollers				5		
Track width	mm			450		
Track width optional	mm			600		
Ground clearance	mm			350		
Track tensioning				Grease		
Travel speed – low	kph			2.5		2.4
Travel speed – high	kph		5		4.6	4.4
Tractive effort	kN	61		65	58	59.8

HYDRAULIC SYSTEM

Machine model		85z-2	86c-2	86c-2 TAB	90z-2	100c-2
Nominal output @ 2200	lpm		158.4		148	
Excavator/track main relief pressure	bar			300		
Slew main relief pressure	lpm			226		
Auxiliary low flow	lpm			40		
Auxiliary high flow	lpm			100		
Auxiliary low flow	bar			190		
Auxiliary high flow	bar			190		

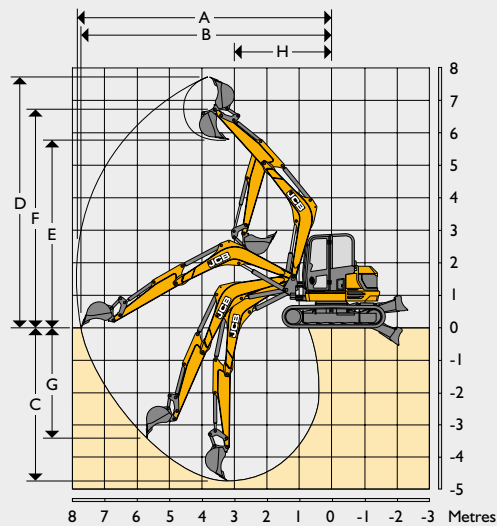
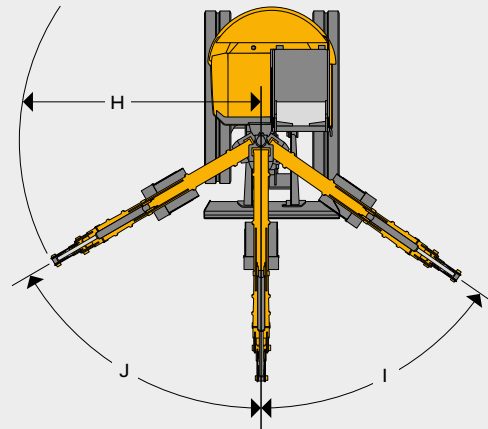
WEIGHTS

Machine model		85z-2	86c-2	86c-2 TAB	90z-2	100c-2
Operating weight* (450mm rubber tracks)	kg	8300	8600	9750	8900	9750
Shipping** weight (450mm rubber tracks)	kg	7950	8720	9400	8550	9400
With FOGS guard roof – Stage 1	kg		+14		+14	
With FOGs guard roof – Stage 1 HVAC	kg		+49		+49	
With FOGS guard front – Stage 2	kg		+38		+97	
With FOGS guard roof – Stage 2	kg		+60			
With steel tracks (450mm)	kg		+195		+184	
With steel tracks (600mm)	kg		+408		+367	
With Bridgestone geogrips	kg		+134		+134	
With wide dozer (2470mm)	kg		+18		+18	
With narrow dozer (2220mm)	kg		-17		-5	
With 4 way dozer	kg		+205		+217	
Mechanical Quickhitch	kg		+95		+95	
Hydraulic Quickhitch	kg		+67			
With Long Dipper (2250mm)	kg		+16		+16	
With short dipper (1650mm)	kg		-48		-48	
Ground bearing pressure (450mm rubber tracks)	kg/cm ²	0.40	0.41	0.45	0.41	0.46
Ground bearing pressure (450mm steel tracks)	kg/cm ²	0.40	0.42	0.46	0.42	0.47
Ground bearing pressure (600mm steel tracks)	kg/cm ²	0.31	0.32	0.35	0.31	0.35

*Operating weight to ISO 6016 including Cab, Rubber Tracks, Standard dipper, 450mm bucket (85z-2, 86c-2, 86c-2 TAB), 600mm bucket (90z), 900mm (100c adding 43kg of weight), full tanks, and a 75kg operator.

**Shipping weight to ISO 6016 is mass of the base machine without an operator, with fuel level at 10% of tank capacity.

WORKING RANGE



			85z-2	86c-2	86c-2 TAB	90z-2	100c-2
	Boom length	mm	2900	3360	Boom in = 2828 Boom out = 3917	3360	3682
	Dipper length	mm	1650 / 2100 / 2250				
A	Max digging reach	mm	6596 / 7029	6815 / 7244 / 7387	7246 / 7844 / 7989	6940 / 7542 / 7495	7065 / 7475 / 7560
B	Max digging reach on ground	mm	6401 / 6848	6635 / 7075 / 7225	7409 / 7691 / 7840	6807 / 7269 / 7389	6888 / 7315 / 7438
C	Max digging depth – dozer up	mm	3234 / 3684	3931 / 4381 / 4531	4022 / 4472 / 4622	3931 / 4381 / 4531	4221 / 4670 / 4820
	Max digging depth – dozer down	mm	3615 / 3715	3922 / 4372 / 4522	4013 / 4463 / 4613	4218 / 4668 / 4818	4491 / 4940 / 5090
D	Max digging height	mm	6487 / 6836	6848 / 7181 / 7293	7776 / 8180 / 8315	6853 / 7181 / 7297	7018 / 7321 / 7478
E	Max dump / load-over height	mm	4674 / 5023	5061 / 5395 / 5506	5900 / 6304 / 6439	4970 / 5320 / 5419	5186 / 5490 / 5660
F	Max height to dipper nose pivot pin	mm	5547 / 5896	5914 / 6248 / 6359	6832 / 7236 / 7371	5914 / 6248 / 6357	6128 / 6435 / 6537
G	Max vertical wallcut depth	mm	2525 / 2941	2736 / 3151 / 3289	3366 / 3782 / 3920	3239 / 2890 / 3821	1877 / 2257 / 3507
H	Min. front swing radius (no offset)	mm	2847 / 3047	2554 / 2679 / 2721	2223 / 2272 / 2288	2958 / 3102 / 3156	2705 / 2863 / 2906
	Min. front swing radius (fully offset)	mm	2478 / 2660	2310 / 2427 / 2466	1919 / 1963 / 1978	2364 / 2508 / 2562	2162 / 2360 / 2408
I	Boom swing left	degrees	55				
J	Boom swing right	degrees	60				
	Bucket rotation	degrees	188				
	Dipper rotation	degrees	114	122	126	114	122
	Bucket tearout	kN	57.1			57.1	72.2
	Dipper tearout	kN	49.9 / 42.3 / 40.3				
	Slew speed	rpm	10			7.9	8.2

DOZER

Machine model	85z-2	86c-2	86c-2 TAB	90z-1	100c-1
Dozer length	mm	1497			
Max height above ground	mm	471			
Dig depth below ground	mm	461			
Approach angle	degrees	27.8			
Width	mm	2320			
Height	mm	473			
Reach in front of tracks	mm	615			

OPERATOR STATION

Machine model	85z-2	86c-2	86c-2 TAB	90z-2	100c-2
Cab/canopy height	mm	1554			
Cab/canopy height with FOGS guard LEVEL 1	mm	1643			
Cab/canopy height with FOGS guard LEVEL 2	mm	1730			
Cab/canopy length	mm	1942			
Cab/canopy width	mm	1040			
Distance from seat base to roof	mm	1120			
Door aperture width	mm	612			

SERVICE CAPACITIES

Machine model	85z-2	86c-2	86c-2 TAB	90z-2	100c-2
Fuel tank	l	112			
Engine coolant	l	11		12.1	
Engine oil	l	11.2			
Hydraulic system	l	118			
Hydraulic tank	l	66			

NOISE/VIBRATION (85Z-2, 86C-2)

			Uncertainty	Measurement Conditions
Noise at the operator station (Lpa)	76 dB	(KpA)	0 dB	ISO 6396: 2008
Noise emission from the machine (Lwa)	95 dB	(KwA)	3dB	ISO 6395: 1988
Hand Arm Vibration (m/s²)				
Tracking duty	≤ 2.5	(K)		EN ISO 5349-2: 2001*
Low idle and excavating duty	≤ 2.5	(K)		EN ISO 5349-2: 2001*
Whole body vibration (m/s²)	0.3	(K)		ISO 2631-1: 1997*

*Based upon a test cycle defined in SAE J 1166

NOISE/VIBRATION (90Z-2, 100C-2)

			Uncertainty	Measurement Conditions
Noise at the operator station (Lpa)	78 dB	(KpA)	0 dB	ISO 6396: 2008
Noise emission from the machine (Lwa)	97 dB	(KwA)	1 dB	ISO 6395: 1988
Hand arm vibration (m/s²)				
Tracking duty	≤ 2.5	(K)		EN ISO 5349-2: 2001*
Low idle	≤ 2.5	(K)		EN ISO 5349-2: 2001*
Whole body vibration (m/s²)	0.4	(K)		ISO 2631-1: 1997*

*Based upon a test cycle defined in SAE J 1166

EQUIPMENT		OPERATOR STATION (CONTINUED)		EXTERNAL EQUIPMENT	
SERVICE AND MAINTENANCE					
500 hours dig end greasing intervals	•	Below idle system	•	Advanced lift overload system	+
Greasegun & cartridge	+	Four digging powerbands	•	Mechanical quickhitch	+
Toolkit	+	Electronic single/double acting auxiliary changeover valve	•	Hydraulic quickhitch	+
Block heater 110/240V	+	Midback suspension seat	•	Hydraulic quickhitch ready pipework	+
2 speed auto-kickdown motors	•	2 piece removable floormat	•	General purpose digging buckets	+
Colour coded hydraulic hoses	•	10 different attachment flow settings	•	Ditch/grading buckets	+
Auto warm	•	One touch idle	•	Hydraulic breakers	+
Electric refuelling pump	+			Exterior cab mounted mirrors	•
CESAR datatag (UK only)	•			Thumb ready dipper	+
TRACKS AND UNDERCARRIAGE		HYDRAULICS		Special paint options	+
450mm or 600mm steel tracks	+	Low flow, double acting auxiliary	+	Worklight guards (cab)	+
450mm Geo Grip Road Liner tracks	+	High flow double acting auxiliary	•	Twin pair of front roof mounted worklights	+
4-way angled dozer blade	+	Bucket-to-grab change over valve	+	Short & long dipper options	+
Dozer float	+	Electronic single/double acting auxiliary changeover valve	•	Beacon ready kit	•
450mm short pitch rubber tracks	+	Dual pattern controls (ISO/SAE change-over)	+	2 position speed & power bucket tipping link	•
		ISO servo controls with electro-hydraulic dozer lever	•	Bushed kingpost	•
		Hydraulic slew braking with disc type park brake	•	Protected boom worklight	•
		ORFS hydraulics	•	100% steel bodywork	•
OPERATOR STATION		Tool Select	•		
Interior mirror	+	Tilt rotate ready installation	+		
Air-conditioning	+	Auto vent	•		
Adjustable sunblind	•				
High back seat or deluxe heated high back air suspension seat	+	PROTECTION AND SAFETY			
Radio installation with media socket	+	FOGS guard stage 1 or 2	+		
Media socket	+	Fan & chaff guards	+		
Face fan	+	Battery isolator*	•		
Tilting cab	•	Beacon kits	+		
Intermittent wiper with wash/wipe	•	LED worklights (with follow me home function)	+		
Roof mounted front and rear worklights	•	Travel alarm	+		
3 speed heater/demister with 9 adjustable air vents	•	Fire extinguisher	+		
Colour LCD display	•	JCB Immobiliser (unique key or keypad system)	+		
Digital clock	•	Rearview camera	+		
Internal lockable toolbox	•	Rearview angled mirror	+		
Interior light	•	Dipper/crowd Ram guards	+		
Cup holder	•	White noise alarm	+		
Coat hooks	•	Front screen guard (fine or course)	+		
12v accessory socket	•	Neutral start	•		
Full audio/visual warning systems	•	Full control isolation	•		
Radio ready kit	•	2GO hydraulic isolation	•		
Auto idle throttle	•	Livelink	•		
		Health check system	•		
				STANDARD • OPTIONAL +	
				* Region specific	

STANDARD

•

OPTIONAL

+

* Region specific

LIFT CAPACITIES – 450MM RUBBER TRACKS, 2900MM BOOM, 1650MM DIPPER, NO BUCKET

85Z

Load Point	2.0m			3.0m			4.0			5.0m			Capacity at maximum reach			
																
Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Distance m
4.0							1551*	1551*	1316				1277	1726*	965	4.8
3.0				2107*	2107*	2016	1728	1835*	1288	1211	1709*	915	1078	1709*	815	5.4
2.0							1667	2259*	1232	1188	1853*	894	999	1729*	754	5.6
1.0							1606	2663*	1176	1161	2012*	868	987	1774*	742	5.6
0.0				2467	4383*	1705	1571	2820*	1143	1143	2053*	851	1030	1809*	771	5.4
-1.0	3511*	3511*	3406	2473	3922*	1711	1566	2629*	1138				1173	1819*	873	4.9
-2.0				2517	2835*	1749	1601	1738*	1171				1601	1738*	1171	4.0

LIFT CAPACITY – 450MM RUBBER TRACKS, 2900MM BOOM, 2100MM DIPPER, NO BUCKET

85Z

Load Point	2.0m			3.0m			4.0			5.0m			Capacity at maximum reach			
																
Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Distance m
5.0							1329*	1329*	1321				1438	1539	1080	4.5
4.0							1268*	1268*	1268*	1222	1434*	924	1082	1502*	817	5.4
3.0							1561*	1561*	1561*	1544*	1544*	1025	927	1873*	784	5.8
2.0				2281*	2281*	2281*	2046*	2046*	1437	1190	1823*	1004	855	1915*	719	6
1.0				2378	4019*	1974	1565	2638*	1319	1077	2027*	932	814	1954*	698	6
0.0				2393	4448*	1863	1548	2903*	1191	1152	2172*	856	862	2005*	687	5.8
-1.0	3310*	3310*	3286	2163	4081*	1663	1452	2900*	1075	984	2071*	791	968	2070*	731	5.4
-2.0	4847	6151*	3352	2444	3411*	1680	1542	2254*	1112				1242	1614*	913	4.7

LIFT CAPACITY – 450MM RUBBER TRACKS, 2900MM BOOM, 2250MM DIPPER, NO BUCKET

85Z

Load Point	2.0m			3.0m			4.0			5.0m			Capacity at maximum reach			
																
Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Distance m
5.0							1235*	1235*	1235*				1360	1483*	1027	4.7
4.0										1245	1371*	945	1056	1453*	800	5.5
3.0							1370*	1370*	1323	1231	1439*	932	925	1459*	699	5.9
2.0							1694	1884*	1253	1196	1630*	899	879	1492*	662	6.1
1.0							1607	2381*	1172	1156	1851*	860	844	1524*	632	6.2
0.0				2414	4302*	1652	1545	2701*	1115	1123	2000*	829	874	1571*	652	6
-1.0	2710*	2710*	3213	2390	4198*	1631	1520	2727*	1092	1110	1972*	817	980	1668*	727	5.5
-2.0	4611*	4611*	3283	2416	3550*	1655	1532	2357*	1102				1192	1666*	877	4.8



Lift capacity front and rear.



Lift capacity full circle.

Notes:

1. Lifting capacities are based on ISO 10567, that is: 75% of minimum tipping load or 87% of hydraulic lift capacity, whichever is the less. Lifting capacities marked* are based on hydraulic capacity.
2. Lift capacities assume that the machine is on firm level ground and equipped with an approved lifting point.
3. A bucket must be fitted when lifting, the weight of this bucket must be deducted from the above lift capacities.
4. Lift capacities may be limited by local regulations. Please refer to your dealer.

LIFT CAPACITIES – 450MM RUBBER TRACKS, 3360MM BOOM, 1650MM DIPPER, NO BUCKET

86C

Load Point	2.0m			3.0m			4.0			5.0m			Capacity at maximum reach			
																
Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Distance m
5.0							1555*	1555*	1555*				1571 *	1571 *	1571 *	4.1
4.0							1543*	1543*	1543*	1542	1555*	1287	1493	1567 *	1133	5.1
3.0				2268*	2268*	2268*	1808*	1808*	1762	1529	1614*	1274	1284	1576 *	976	5.6
2.0							2082	2209*	1690	1499	1776*	1243	1206	1606 *	916	5.8
1.0							2018	2547*	1627	1468	1932*	1211	1192	1653 *	903	5.8
0.0				3109	3612*	2371	1982	2673*	1592	1447	1994*	1190	1241	1707 *	936	5.6
-1.0	3360*	3360*	3360*	3118	3641*	2379	1976	2555*	1586	1445	1864*	1188	1373	1727 *	724	5.2
-2.0	4503*	4503*	4350	2974*	2974*	2414	1999	2091*	1608				1748	1756 *	1294	4.4

LIFT CAPACITY – 450MM RUBBER TRACKS, 3360MM BOOM, 2100MM DIPPER, NO BUCKET

86C

Load Point	2.0m			3.0m			4.0			5.0m			Capacity at maximum reach			
																
Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Distance m
5.0													1399*	1399*	1195	4.9
4.0										1325*	1325*	1292	1273	1381 *	972	5.6
3.0							1512*	1512*	1512*	1414*	1414*	1414*	1395*	1395*	961	6
2.0				2709*	2709*	2709*	1937*	1937*	1937*	1596*	1596*	1264	1128	1464*	888	6.2
1.0				3579*	3579*	2434	2352	2352*	1670	1793*	1793*	1215	1094	1508*	875	6.2
0.0				3002	3760*	2320	1887	2587*	1610	1433	1955*	1178	1089	1498*	911	6
-1.0	2861*	2861*	2861 *	3353*	3353*	2309	1853	2542*	1559	1368	1959*	1157	1150	1550*	998	5.7
-2.0	4945*	4945*	4223	3062	3316*	2339	1934	2311 *	1552	1416	1600*	1165	1416	1600*	1165	5
-3.0	3561*	3561 *	3561 *	2291*	2291*	2291 *							1511*	1511 *	1511 *	3.9

LIFT CAPACITY – 450MM RUBBER TRACKS, 3360MM BOOM, 2250MM DIPPER, NO BUCKET

86C

Load Point	2.0m			3.0m			4.0			5.0m			Capacity at maximum reach			
																
Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Distance m
5.0										1314*	1314*	1291	1339*	1339*	1248	5.1
4.0										1258*	1258*	1298	1221	1333*	1020	5.8
3.0							1453*	1453*	1453*	1371 *	1371 *	1274	1093	1347*	912	6.2
2.0				2638*	2638*	2586	1880*	1880*	1699	1494	1568*	1234	1031	1376*	779	6.4
1.0				3149	3599*	2401	2010	2305*	1615	1451	1775*	1191	1018	1417*	768	6.4
0.0				3062	3654*	2320	1953	2563*	1558	1419	1915*	1158	1078	1507*	890	6.1
-1.0	2727*	2727*	2727*	3044	3846*	2303	1929	2595*	1535	1404	1924*	1143	1150	1535*	947	5.8
-2.0	4588*	4588*	4191	3065	3414*	2323	1935	2366*	1540	1413	1688*	1152	1343	1546*	1099	5.2
-3.0	3993*	3993*	3993*	2497*	2497*	2381	1639*	1639*	1587				1547*	1547*	1538	4.1



Lift capacity front and rear.



Lift capacity full circle.

Notes:

1. Lifting capacities are based on ISO 10567, that is: 75% of minimum tipping load or 87% of hydraulic lift capacity, whichever is the less. Lifting capacities marked* are based on hydraulic capacity.
2. Lift capacities assume that the machine is on firm level ground and equipped with an approved lifting point.
3. A bucket must be fitted when lifting, the weight of this bucket must be deducted from the above lift capacities.
4. Lift capacities may be limited by local regulations. Please refer to your dealer.

LIFT CAPACITIES – 450MM RUBBER TRACKS, 3360MM BOOM, 1650MM DIPPER, NO BUCKET																86C TAB
Load Point	3.0m			4.0m			5.0			6.0m			Capacity at maximum reach			
																
Height	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Distance
m	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	m
6.0				1752*	1752*	1584							1752*	1752*	1584	4
5.0				1618*	1618*	1624	1421	1559*	1193				1210	1487*	1016	5.5
4.0				1227*	1227*	1227*	1418	1558*	1190				1153	1477*	983	5.8
3.0				1360*	1360*	1360*	1380	1653*	1151	1031	1427*	860	1014	1413*	848	6.2
2.0	2283*	2283*	2251	1714*	1714*	1392	1329	1763*	1098	1008	1445*	836	948	1368*	828	6.4
1.0	2961	3218*	2052	1844	2109*	1316	1285	1816*	1052	989	1409*	817	909	1332*	789	6.4
0.0	2839	3619*	1947	1809	2196*	1285	1258	1762*	1024	984	1250*	811	897	1295*	769	6.2
-1.0	2512*	2512*	1914	1780	1922*	1284	1253	1565*	1018				1106	1154*	882	5.9
-2.0	1869*	1869*	1935	1466	1466*	1308	1096*	1096*	1040				972*	972*	995	5.2

LIFT CAPACITIES – 450MM RUBBER TRACKS, 3360MM BOOM, 2100MM DIPPER, NO BUCKET																86C TAB
Load Point	3.0m			4.0m			5.0			6.0m			Capacity at maximum reach			
																
Height	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Distance
m	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	m
6.0				1445*	1445*	1445*	1389*	1389*	1389*				1389*	1389*	1389*	5
5.0				1430*	1430*	1430*	1375*	1375*	1375*	1194*	1194*	1194*	1194*	1194*	1194*	6
4.0				1551*	1551*	1551*	1057*	1057*	1057*	1253*	1253*	1253*	1192	1306*	964	6.3
3.0				2070*	2070*	2070*	1169*	1169*	1169*	1065*	1065*	1065*	1069	1252*	861	6.7
2.0	1831*	1831*	1831*	1420*	1420*	1420*	1411*	1411*	1410	1400*	1400*	1004	1033	1234*	829	6.8
1.0	2981*	2981*	2182	2012*	2012*	1553	1502	1546*	1126	1218	1440*	972	997	1174*	797	6.9
0.0	3374	3656*	2042	2151	2381*	1469	1453	1719*	1081	1195	1407*	948	1030	1149*	821	6.7
-1.0	3294	3828*	1982	1981	2027*	1413	1407	1627*	1159	1188	1259*	941	1096	1052*	873	6.4
-2.0	3289	3530*	1979	1662*	1662*	1427	1327*	1327*	1168				947*	947*	1002	5.8
-3.0				1038*	1038*	1038*							642*	642*	642*	4.9

LIFT CAPACITIES – 450MM RUBBER TRACKS, 3360MM BOOM, 2250MM DIPPER, NO BUCKET																86C TAB
Load Point	3.0m			4.0m			5.0			6.0m			Capacity at maximum reach			
																
Height	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Distance
m	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	m
6.0				1420*	1420*	1420*	1443	1497*	1226				1443	1497*	1226	5
5.0				1372*	1372*	1372*	1337*	1337*	1253				1174	1478*	952	5.9
4.0				1500*	1500*	1500*	1383*	1383*	1239	1207	1348*	988	1056	1321*	862	6.5
3.0				1773*	1773*	1569	1133*	1133*	1116	1191	1392*	972	979	1364*	798	6.8
2.0				1364*	1364*	1364*	1312*	1312*	1087	1166	1460*	947	928	1253*	753	7
1.0	2715*	2715*	2176	1863*	1863*	1404	1333	1551*	1050	1141	1510*	921	918	1232*	744	7
0.0	2950	3490*	2060	1875	2272*	1362	1303	1761*	1017	1122	1500*	902	949	1297*	767	6.8
-1.0	2780*	2780*	2011	1836	2205*	1343	1290	1760*	1067	1116	1382*	896	1007	1153*	813	6.5
-2.0	2644*	2644*	2008	1830	1866*	1338	1295	1492*	1073	1008*	1008*	911	1008*	1008*	911	6
-3.0	1756*	1756*	1756*	1282*	1282*	1282*	856*	856*	856*				780*	780*	780*	5.1



Lift capacity front and rear.



Lift capacity full circle.

Notes:

- Lifting capacities are based on ISO 10567, that is: 75% of minimum tipping load or 87% of hydraulic lift capacity, whichever is the less. Lifting capacities marked* are based on hydraulic capacity.
- Lift capacities assume that the machine is on firm level ground and equipped with an approved lifting point.
- A bucket must be fitted when lifting, the weight of this bucket must be deducted from the above lift capacities.
- Lift capacities may be limited by local regulations. Please refer to your dealer.

LIFT CAPACITIES – 450MM RUBBER TRACKS, 3360MM BOOM, 1650MM DIPPER, NO BUCKET

90Z

Load Point	2.0m			3.0m			4.0			5.0m			Capacity at maximum reach			
																
Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Distance m
5.0							1385*	1385*	1385*				1459*	1459*	1168	4.5
4.0							1408*	1408*	1408*	1322	1612*	996	1201	1634*	905	5.3
3.0				2233*	2233*	2101	1705*	1705*	1362	1304	1719*	979	1034	1645*	778	5.8
2.0							1764	2478*	1289	1270	1928*	946	970	1679*	727	6
1.0							1697	2889*	1226	1236	2124*	914	957	1732*	714	6
0.0				2611*	2611*	1785	1663	3020*	1195	1214	2207*	894	993	1792*	738	5.8
-1.0	2726*	2726*	2726*	2627	4150*	1796	1658	2870*	1191	1210	2091*	890	1094	1819*	810	5.4
-2.0	4172*	4172*	3202	2663	3360*	1829	1680	2364*	1211				1380	1852*	1011	4.6

LIFT CAPACITY – 450MM RUBBER TRACKS, 3360MM BOOM, 2100MM DIPPER, NO BUCKET

90Z

Load Point	2.0m			3.0m			4.0			5.0m			Capacity at maximum reach			
																
Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Distance m
5.0										1234*	1424*	995	1255	1463*	943	5.2
4.0										1189*	1372*	1282*	1037	1432*	809	5.8
3.0							1540*	1559*	1594*	1438*	1475*	992	967	1429*	683	6.2
2.0				3244*	3359*	2239*	2227*	2275*	1335	1422	1784*	953	883	1509*	625	6.4
1.0				2726	3966*	1808	1841	2671*	1277	1300	1997*	901	867	1540*	602	6.5
0.0				3045*	4115*	1684	1743	3062*	1130	1260	2237*	887	914	1670*	656	6.4
-1.0	2300*	2300*	2300*	2270	3686*	1664	1603	2945*	1140	1186	2166*	878	953	1664*	697	5.9
-2.0	3991*	3991*	3089	2588	3792*	1760	1628	2595*	1160	1187	1836*	866	1114	1640*	817	5.2
-3.0	3311*	3311*	3183	2250*	2250*	1818	1458*	1458*	1208				1352*	1352*	1163	4.1

LIFT CAPACITY – 450MM RUBBER TRACKS, 3360MM BOOM, 2250MM DIPPER, NO BUCKET

90Z

Load Point	2.0m			3.0m			4.0			5.0m			Capacity at maximum reach			
																
Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Distance m
5.0										1148*	1148*	1004	1204	1390*	906	5.3
4.0										1126*	1126*	1005	983	1384*	738	6
3.0							1340*	1340*	1340*	1253*	1253*	980	879	1400*	657	6.4
2.0							1779	2080*	1300	1265	1690*	940	827	1433*	615	6.6
1.0							1690	2602*	1217	1220	1942*	897	815	1479*	603	6.6
0.0				2557	3274*	1731	1632	2900*	1164	1186	2111*	865	860	1576*	634	6.3
-1.0	2184*	2184*	2184*	2548	4465*	1723	1610	2923*	1144	1170	2130*	850	915	1609*	672	6
-2.0	3701*	3701*	3059	2571	3918*	1744	1617	2656*	1150	1176	1904*	856	1064	1626*	779	5.4
-3.0	3779*	3779*	3149	2458*	2458*	1797	1643*	1643*	1189				1411*	1411*	1082	4.3



Lift capacity front and rear.



Lift capacity full circle.

Notes:

1. Lifting capacities are based on ISO 10567, that is: 75% of minimum tipping load or 87% of hydraulic lift capacity, whichever is the less. Lifting capacities marked* are based on hydraulic capacity.
2. Lift capacities assume that the machine is on firm level ground and equipped with an approved lifting point.
3. A bucket must be fitted when lifting, the weight of this bucket must be deducted from the above lift capacities.
4. Lift capacities may be limited by local regulations. Please refer to your dealer.

LIFT CAPACITY – 450MM RUBBER TRACKS, 3682MM BOOM, 1650MM DIPPER, NO BUCKET**100C**

Load Point	2.0m			3.0m			4.0			5.0m			Capacity at maximum reach			
																
Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Distance m
5.0							1725*	1725*	1725*				1784*	1784*	1784*	4.6
4.0							1842*	1842*	1842*	1763	1845	1614	1768*	1768*	1438	5.4
3.0				3040*	3040*	3040*	2229*	2229*	2171	1904	1993	1588	1684	1869*	1285	5.8
2.0							2729*	2729*	2084	2053	2220	1548	1586	1915*	1208	6
1.0							2751	3237*	2015	2012	2415*	1510	1533	1942*	1166	6.1
0.0				2353*	2353*	2353*	2713	3335*	1980	1986	2490	1486	1628	2051*	1232	5.8
-1.0	2766*	2766*	2766*	4199*	4199*	2961	2707	3175*	1974	1979	2378	1480	1745	2043*	1316	5.5
-2.0	5000*	5000*	5000*	3543*	3543*	2993	2598*	2598*	1992				1967*	1967*	1577	4.8
-3.0				2297*	2297*	2297*							1892*	1892*	1892*	3.5

LIFT CAPACITY – 450MM RUBBER TRACKS, 3682MM BOOM, 2100MM DIPPER, NO BUCKET**100C**

Load Point	2.0m			3.0m			4.0			5.0m			Capacity at maximum reach			
																
Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Distance m
5.0										1530*	1530*	1530*	1563*	1563*	1527	5.2
4.0							1542*	1542*	1542*	1539*	1539*	1539*	1568*	1568*	1259	5.9
3.0				2385*	2385*	2385*	1926*	1926*	1926*	1708*	1708*	1587	1485	1664*	1132	6.3
2.0							2454*	2454*	2090	1953*	1953*	1540	1404	1701*	1068	6.5
1.0							2743	3042*	2004	1997	2285*	1494	1388	1751*	1053	6.5
0.0				2704*	2704*	2704*	2685	3265*	1952	1961	2426*	1461	1436	1819*	1085	6.3
-1.0	2466*	2466*	2466*	4202	4622*	2897	2665	3226*	1933	1945	2410*	1445	1560	1898*	1174	5.9
-2.0	4391*	4391*	4391*	3916*	3916*	2921	2674	2920*	1941	1952	2152*	1452	1808	1938*	1352	5.3
-3.0	4539*	4539*	4539*	2963*	2963*	2963*	2086*	2086*	1982				1834*	1834*	1805	4.3

LIFT CAPACITY – 450MM RUBBER TRACKS, 3682MM BOOM, 2250MM DIPPER, NO BUCKET**100C**

Load Point	2.0m			3.0m			4.0			5.0m			Capacity at maximum reach			
																
Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Distance m
5.0										1443*	1443*	1443*	1510*	1510*	1438	5.4
4.0										1469*	1469*	1469*	1513*	1513*	1212	6.1
3.0				2324*	2324*	2324*	1916*	1916*	1916*	1710*	1710*	1710*	1607*	1607*	1109	6.5
2.0				3577*	3577*	3577*	2437*	2437*	2437*	1961*	1961*	1615	1364	1674*	1066	6.6
1.0				4202*	4202*	2849	2911*	2911*	2071	2217*	2217*	1533	1333	1734*	1025	6.6
0.0				4347*	4347*	2854	2687	3232*	1963	1969	2467*	1471	1385	1800*	1040	6.4
-1.0	4444*	4444*	3309	4052*	4052*	2660	2633	3261*	1853	1940	2520*	1416	1493	1883*	1112	6.1
-2.0	4118*	4118*	4118*	4027*	4027*	2904	2662	2976*	1930	1942	2206*	1442	1709	1871*	1280	5.5
-3.0	4966*	4966*	4966*	3149*	3149*	2956	2229*	2229*	1965				1832*	1832*	1674	4.5



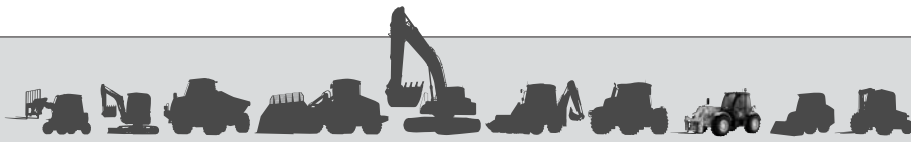
Lift capacity front and rear.



Lift capacity full circle.

Notes:

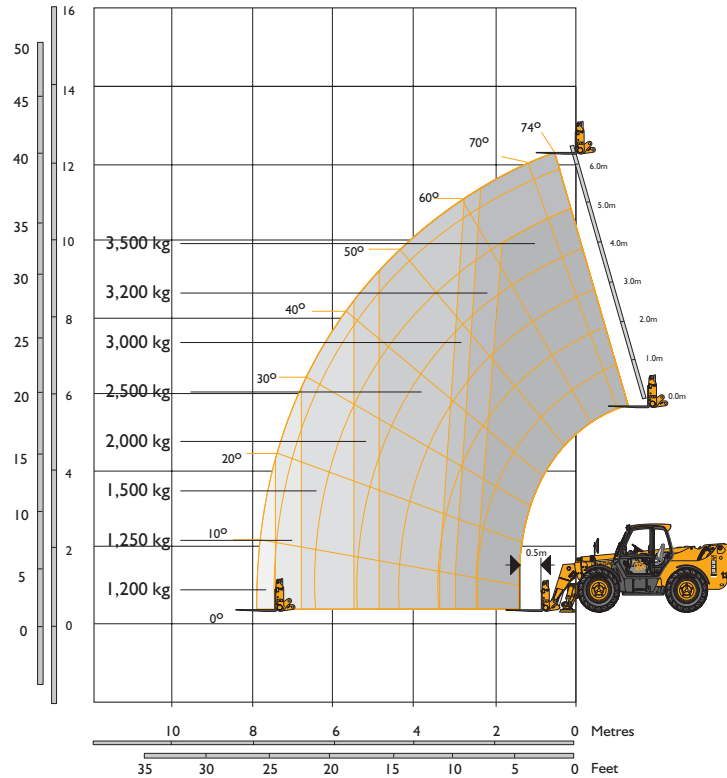
- Lifting capacities are based on ISO 10567, that is: 75% of minimum tipping load or 87% of hydraulic lift capacity, whichever is the less. Lifting capacities marked* are based on hydraulic capacity.
- Lift capacities assume that the machine is on firm level ground and equipped with an approved lifting point.
- A bucket must be fitted when lifting, the weight of this bucket must be deducted from the above lift capacities.
- Lift capacities may be limited by local regulations. Please refer to your dealer.



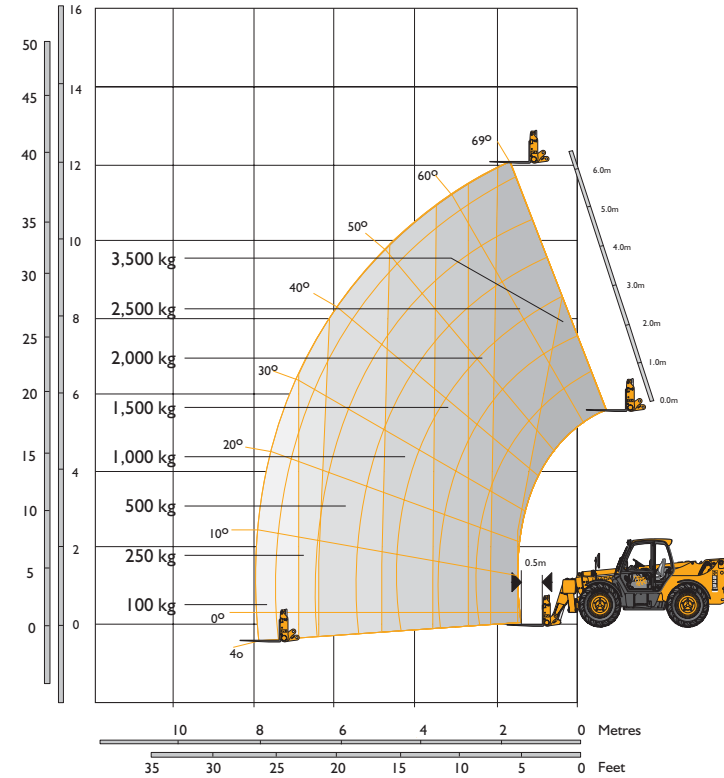
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LIFT PERFORMANCE – STABILISERS EXTENDED



LIFT PERFORMANCE – STABILISERS RETRACTED



Chassis Levelling (Sway)
With stabilisers retracted (Sway angle $\pm 9^\circ$)

LIFT PERFORMANCE – STABILISERS EXTENDED

With Stabilisers Extended

Maximum lift capacity	kg (lb)	3500 (7716)
Lift capacity to full height	kg (lb)	3200 (7055)
Lift capacity at full reach	kg (lb)	1200 (2646)
Lift height	m (ft-in)	12.3 (40-4)
Reach at maximum lift height	m (ft-in)	0.6 (2-0)
Maximum forward reach	m (ft-in)	8.0 (26-3)
Reach with 1 tonne load	m (ft-in)	8.0 (26-3)
Placing Height	m (ft-in)	11.5 (37-8)

Complies with FEM stability test 4.001R. Lift heights are with stabilisers fully extended.

LIFT PERFORMANCE – STABILISERS RETRACTED

With Stabilisers Retracted

Maximum lift capacity	kg (lb)	3500 (7716)
Lift capacity to full height	kg (lb)	2500 (5512)
Lift capacity at full reach	kg (lb)	100 (221)
Lift height	m (ft-in)	12 (39-4)
Reach at maximum lift height	m (ft-in)	1.44 (4-9)
Maximum forward reach	m (ft-in)	8.0 (26-3)
Reach with 1 tonne load	m (ft-in)	4.89 (16-0)
Placing Height	m (ft-in)	11.5 (37-8)

Complies with stability test EN1459 annex B.



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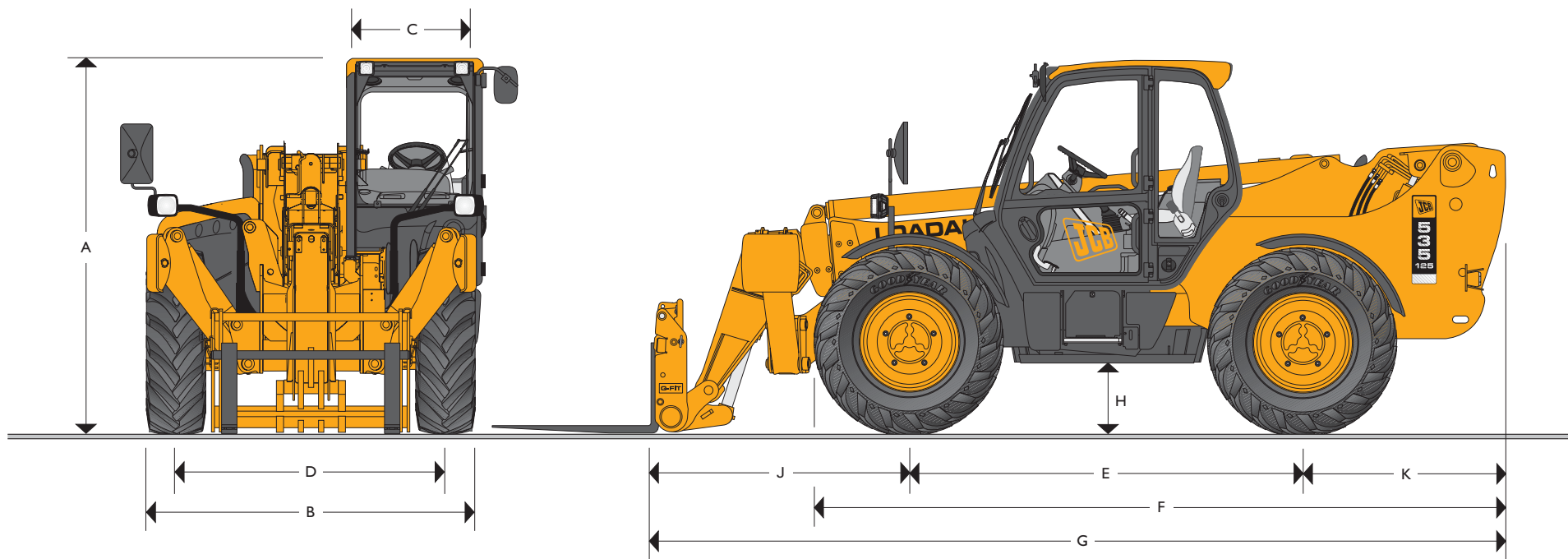


MAX. PAYLOAD:

3.5 tonnes (7716lb)

MAX. LIFT HEIGHT:

12.3 metres (40ft 4in)



STATIC DIMENSIONS

Machine model	535-125
	m (ft-in)
A Overall height	2.59 (8-6)
B Overall width (over tyres)*	2.35 (7-9)
C Inside width of cab	0.94 (3-3)
D Front track	1.90 (6-3)
E Wheelbase	2.75 (9-0)
F Overall length to front tyres	4.83 (15-10)
G Overall length to front carriage	5.84 (19-2)
H Ground clearance	0.40 (1-4)

*Dependant upon tyre specified.

Machine model	535-125
	m (ft-in)
J Front wheel centre to carriage	1.62 (5-3)
K Rear wheel centre to rear face	1.47 (4-8)
Overall width with stabilisers fully deployed	2.56 (8-4)
Outside turn radius (over tyres)	4.0 (13-2)
Carriage roll back angle	degrees 41.5
Carriage dump angle	degrees 9.6
Weight	kg (lb) 9410 (20745)
Tyres	15.5/80-24

A Product
of Hard Work



JCB LOADALL | 535-125



ENGINE

Latest technology and advanced design provides low fuel consumption, reduced noise, high torque and power output, total reliability and minimal maintenance. Two-stage, dry type air filter with primary and safety elements.

Machine Model – 535-125		Standard	Option	Option*
Displacement	ltr (in³)	4.4 (269)	4.4 (269)	4.4 (269)
No. of cylinders		4	4	4
Bore size	mm (in)	103 (4.05)	103 (4.05)	103 (4.05)
Stroke	mm (in)	132 (5.0)	132 (5.0)	132 (5.0)
Aspiration		Naturally aspirated	Turbo	Turbo Intercooled
Power rating				
Power @ 2200rpm	kW (HP)	63 (85)	74.2 (100)	93 (125)
Torque rating				
Torque @ 1200rpm	Nm (lbf ft)	320 (236)	–	–
Torque @ 1300rpm	Nm (lbf ft)	–	425 (313)	525 (387)

*Not available on stabilised only models.

TRANSMISSION

JCB powershift transmission incorporating torque converter, bevel box and a 4 speed powershift gearbox in one resiliently mounted unit.

A combined steering column mounted switch incorporating directional control and 4 forward and 4 reverse powershift gears. Travel speed 25kph (15.5mph). Optional 33kph transmission.

Front and rear drive axles: JCB epicyclic hub reduction drive/steer axles with Max-Trac torque proportioning differentials. Permanent 4 wheel drive.

BRAKES

Service brakes: Servo-assisted-hydraulically activated, self-adjusting, oil-immersed multi-disc type on front and rear axle.

Parking brake: Hand operated disc brake on output of gearbox. (93kW/125hp – oil immersed disc type).

BOOM AND CARRIAGE

Boom is manufactured from high tensile steel.

Low maintenance, hard wearing pads.

JCB Q-fit self-levelling carriage with lever operated pin locking accepts pallet forks and a wide range of attachments.

One boom end auxiliary hydraulic service fitted as standard.

SAFETY CHECK VALVES

Fitted to carriage tilt, telescopic and boom lift rams.

SERVICE CAPACITIES

Fuel tank	litres (UK gal)	125 (27.5)
Hydraulic tank	litres (UK gal)	131 (28.2)
Coolant	litres (UK gal)	23 (5.1)

HYDRAULICS

Two stage gear pump with suction strainer and filter.

Operating system pressure	bar (psi)	241 (3500)
Pump flow	ltrs/min	110
Hydraulic Cycle Times		Seconds
Boom raise		9.9
Boom lower		7.6
Extend		13.0
Retract		13.7
Bucket dump		2.2
Bucket crowd		2.9

ELECTRICS

12 v negative earth. 130 AH battery. 95 amp alternator. Full road lighting. Reversing light. Direction indicators. Hazard warning. Reverse alarm.

CAB

Quiet safe and comfortable cab conforms to ROPS ISO 3471 and FOPS ISO 3449. Tinted glass all round. Laminated roof screen. Roof bars, front, rear and roof screen wash/wipe and heater/screen demister. Opening rear window. Audio-visual warning system for coolant temperature, engine oil pressure, air cleaner, battery charge, transmission oil temperature and pressure, water in fuel. Hourmeter and road speed indicator. Engine temperature, fuel gauge and inclinometer.

Mechanical joystick, direct acting hydraulic control levers. Adjustable steer column with stalk bar powershift change and forward reverse shuttle. Throttle and brake pedal. Adjustable deluxe seat with adjacent park brake fitted.

Automatic eye level audio-visual load moment indicator warning system receiving a signal from a load sensor on the rear axle.

This system continuously monitors the machine's forward stability and leaves the operator in control at all times.

Optional indicator lamp to show when the stabilisers are on firm ground.

Safety canopy as above but with side glass and roof glass only (screen wiper and heater/screen demister not applicable).

STEERING

Hydrostatic power steering.

Three steer mode options: front wheel steer; all wheel steer; crab steer: operated from in the cab by a selection switch.

OPTIONS AND ACCESSORIES

Options: Front and rear working lights, rotating flashing beacon, fire extinguisher, radial industrial tyres, electrical 2/4WD select, limited slip differential in front axle, windscreen and roof guard, air suspension seat, deluxe cab trim with smoking pack, roof and front screen blind, radio kit, heavy duty battery, air conditioning, clearview carriage, sideshift.

Attachments: Contact your local dealer for details of the comprehensive range.



A GLOBAL COMMITMENT TO QUALITY

JCB's total commitment to its products and customers has helped it grow from a one-man business into Britain's largest privately owned manufacturer of backhoe loaders, crawler excavators, wheeled excavators, telescopic handlers, wheeled loaders, dump trucks, rough terrain fork lifts, industrial fork lifts, mini/midi excavators, skid steer loaders and tractors.

By making constant and massive investments in the latest production technology, the JCB factories have become some of the most advanced in Europe.

By leading the field in innovative research and design, extensive testing and stringent quality control, JCB machines have become renowned all over the world for performance, value and reliability.

And with a global sales and service network of over 400 distributors and agents, the company exports over 70% of its production to all five continents.

Through setting the standards by which others are judged, JCB has become one of Britain's most impressive success stories.



NEW

RIDGWAY Rentals

PLANT RENTAL • HAULAGE • SALES • PARTS • SERVICE



SITE DUMPERS | IT-2, 3T-2, 6T-2, 9T-2

Payload: 1000 – 9000kg



THE INDUSTRY'S SAFEST DUMPER RANGE.

The new JCB Site Dumper range has been designed to meet the needs of both rental customers and contractors alike, driving positive change within the industry.

Comprising of a range of machines between one and nine tonnes, they provide industry-leading levels of safety as standard. Included in the range are innovative features such as the SiTESAFE cab, which is tested to withstand the impact from a 20 tonne Excavator; and SiTESAFE skip providing exceptional visibility. In-house design, manufacture and testing provide you with the peace of mind that operator safety is our number one priority.

Whatever your business, JCB site dumpers can make a positive difference; offering more safety, productivity and serviceability than ever before.





THE INDUSTRY'S SAFEST.

OPERATOR AND SITE SAFETY ARE AT THE CORE OF JCB SITE DUMPERS. THROUGH EXTENSIVE RESEARCH AND DEVELOPMENT, JCB HAS INTRODUCED A UNIQUE RANGE OF SMART SAFETY FEATURES AND DESIGNED BOTH THE SITESAFE CAB AND SKIP, MAKING THE STAGE V RANGE THE SAFEST IN THE INDUSTRY.



In response to industry feedback a new lower overall height improves access into the cab and improves stability, due to a lower centre of gravity on the 9T-2.

The skip doesn't compromise on dimensions, matching the length, turning circle and ground clearance of a conventional site dumper.

The SITESAFE skip design improves forward visibility by up to 30%, when compared to a conventional front tip skip.

Industry-leading visibility.

- 1** Hi-Viz step and grab handles are available, to reduce likelihood of slips, trips and falls.
- 2** Green and amber LED beacons are now fitted as standard, for improved site safety.
- 3** LED work lights allow the machine and operator to carry on working, even in the toughest conditions.
- 4** Initial movement alarm warns pedestrians and other machines on site when the machine is about to move.
- 5** Both doors have lockback and ajar stays, to provide increased ventilation and improve communication on site.



Industry-leading safety.

- 6** All SiTESAFE cabs are fitted with Hammerglass™ impact protective front screen and toughened side and rear glass as standard.
- For additional protection, there is a front screen guard option.
- 7** Designed and tested to withstand the impact from a 20T excavator, ensuring operator safety on site.
- 8** Standard heater and optional chiller system means you can adjust the in-cab temperature, no matter the ambient conditions. This maximises operator comfort and productivity.
- 9** Two stage Drive Inhibit system ensures the operator wears a seat belt during machine operation.



PRODUCTIVITY AND PERFORMANCE.

YOU CAN BE SAFE IN THE KNOWLEDGE THAT A JCB SITE DUMPER OFFERS SUPERIOR PRODUCTIVITY & RELIABILITY. THE COMPLETE RANGE IS DESIGNED TO MAKE THE MOST EFFICIENT USE OF YOUR TIME AND MONEY, MAKING A HUGE DIFFERENCE TO YOUR BUSINESS.

The JCB advantage.

The 1T-2 and the 3T-2 have no requirement for after treatment, maximising machine uptime. The 6T-2 and 9T-2 are fitted as standard with auto regeneration technology.

A choice of high-tip, front tip and swivel tip, ensures suitability of the JCB range for various applications.



Auto DPF results in zero downtime on-site. Requiring no input from the operator, the machine will self-regulate.

Improved cold start capability, thanks to new pre-heat system.

Service intervals extended to 1000 hours, letting your machine spend more time working with less downtime.

DPF mounted on top of the engine away from any potential underside damage.

Auto stop function will stop the engine after a set period of time.

Designed to work in conjunction with JCB Axles and Transmission, no other dumper is built this way.

New JCB 430 55kW Engine.

STAGE V



The new JCB 430 engine has a 10% increase in torque improving laden and hill climb performance.

BUILT FOR RENTAL RETURNS.

IF IT'S IMPORTANT TO YOUR BUSINESS, IT'S IMPORTANT TO JCB. THAT'S WHY JCB SITE DUMPERS HAVE BEEN DESIGNED, DEVELOPED AND BUILT TO WITHSTAND THE RIGOURS OF THE RENTAL INDUSTRY. TRIED AND TESTED COMPONENTS AND WORLD-CLASS MANUFACTURING STANDARDS, ENSURE MAXIMUM MACHINE UPTIME AND SERVICE LIFE.

Secure your investment.

1 Rental customers have access to industry-leading dealer and parts support, via the JCB dealer network. They can deliver 95% of all parts anywhere in the world within 24 hours, to maximise machine uptime and your return on investment.

LiveLink telematics helps you monitor and manage your fleet's condition, location and activity, remotely, 24/7 via the web:

- › Machine security alerts
- › Machine safety alerts
- › Machine service and maintenance alerts

2 Multiple, well positioned tie down points helps with easy and safe transportation between sites.

Built to last.

3 The new JCB site dumper range has undergone a stringent testing programme, including prolonged high stress loading of the chassis, skip and other key components. Cold climate testing and repeated use over thousands of cycles has also been implemented.

All JCB site dumpers are designed for heavy duty washing with a quick turnaround. New relay protection on 6T and 9T machines prevents water ingress to key electrical components during washing and adverse weather conditions.





Our industry leading factory fit telematics gives you the information to proactively improve efficiency, safety and uptime, giving your fleet the JCB advantage.

GREATER SERVICEABILITY.

TO MAKE THE MOST OF YOUR INVESTMENT, YOU NEED YOUR SITE DUMPER TO SPEND ITS TIME WORKING, NOT BEING WORKED ON. THAT'S WHY THE I-3 TONNE MODELS HAVE NO REQUIREMENT FOR AFTER TREATMENT, WHILE THE LARGER MACHINES HAVE SMART DPF REGENERATION. WHEN MAINTENANCE DOES NEED TO BE CARRIED OUT, ITS QUICK AND EASY TO PERFORM.

Straightforward servicing.

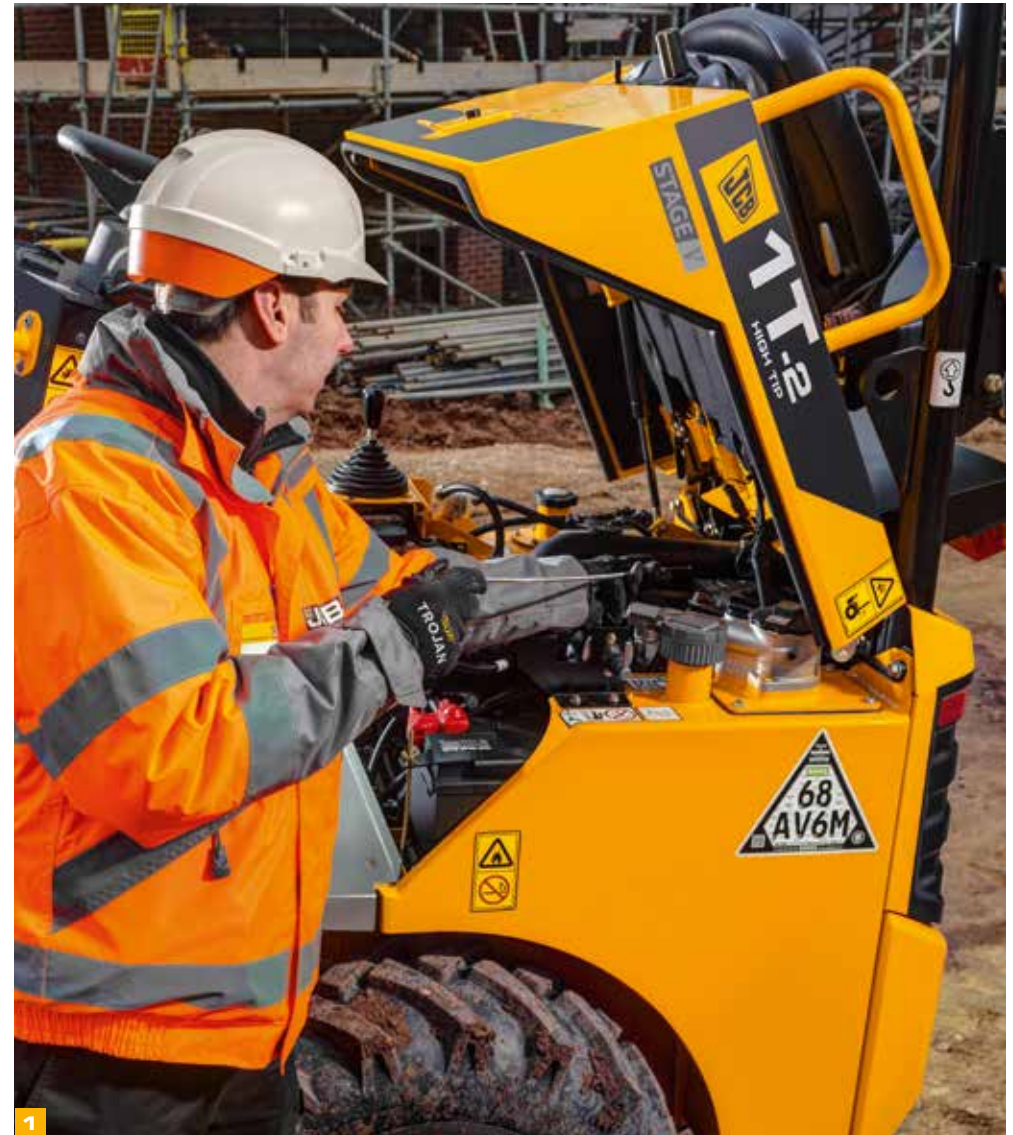
1 Daily checks are simple with ground level access to all main service areas. A tilting seat base on the 1T-2 and 3T-2 models allows for uncompromised service access to the engine, making it easier to reach dipsticks and fluid fill points.

Floor panels on all models can be removed without a specialist tool to access more of the machine for necessary maintenance.

For added peace of mind, all site dumpers come with a 2-year warranty as standard.

JCB Service can work on all machines avoiding third-party call outs.

2 LiveLink telematics is available on all JCB Site Dumpers. LiveLink is standard for 6T-2 & 9T-2 for two years and provides real-time access to DPF information and other key serviceable parts and fluids.





Our industry leading factory fit telematics helps you to proactively check efficiency, operating time and plan maintenance, giving your fleet the JCB advantage.

IT-2 SITE DUMPER.

BUILT WITH TOTAL SAFETY IN MIND, THE IT-2 INCLUDES MARKET-FIRST INNOVATIONS SPECIFICALLY DESIGNED TO ADDRESS INDUSTRY CONCERNS. THE RESULT IS A MACHINE WITH UNRIVALLED SAFETY, DURABILITY AND SERVICEABILITY. A MACHINE PERFECT FOR RENTAL FLEETS AND CONTRACTORS.



The industry's safest.

With a new 16.1 kW Perkins Stage V compliant engine, the new machine now has 21% more torque compared to the outgoing model.

- 1 The High-Tip feature makes it possible to tip into skips and large containers.
- 2 The intuitive "stop and go" pedal controls the hydrostatic drive, making the machine easy to operate for novices and experienced operators alike.
- 3 Thanks to its compact design, the IT-2 can work safely in confined areas. Also, with the optional narrow tyres fitted, the machine has a sub 1m overall width, allowing it to fit through doorways.





Key immobiliser for theft prevention.

Tilt warning system notifies the operator when they are reaching the limits of the machine, through visual and audible alerts.

Engine tip-over protection, prevents engine damage in the event of machine tip-over.

Wide track wheels improve stability by 16%.

JCB has recognised the industry-wide safety concerns surrounding IT dumpers and has worked tirelessly with industry experts to offer a solution.

3T-2 SITE DUMPER.

WITH SAFETY AS STANDARD, THE 3T-2 HAS BEEN DESIGNED TO SUIT MULTIPLE APPLICATIONS, FROM LANDSCAPING TO UTILITIES WORK, MAKING IT IDEAL FOR THE RENTAL MARKET.

360° engine access makes completing daily checks and servicing easy.



Adaptable and dependable.

1 The 3T-2 Site Dumper has a new 18.9kW Stage V compliant engine with no DPF resulting in reduced downtime. The combination of hydrostatic drive and 87.2Nm of torque at 1800rpm ensures excellent gradient performance.

2 Unique drive inhibit feature prevents the operator using the machine without wearing a seatbelt. To further improve safety, a seatbelt monitoring green beacon is now fitted as standard.

3 Front or Swivel tip option is available to suit different applications.

To negate the requirement for a trailer, the 3T-2 is available with an optional road light kit allowing the machine to travel between work sites independently.

Optional high-visibility steps and grab handles provide easier and safer access and egress.





Ergonomic transmission dump switch allows the operator to divert the full power of the engine from the transmission to the hydraulic system, increasing performance.

6T-2 SITE DUMPER.

THE 6T-2 SITE DUMPER IS THE SAFEST AND MOST PRODUCTIVE MACHINE IN ITS CLASS. WITH A SPECIFICALLY DESIGNED JCB DRIVETRAIN, AND 3 DIFFERENT SKIP VARIANTS ON OFFER, YOUR BUSINESS CAN TRUST IN JCB TO GET THE JOB DONE.

Unrivalled safety.

- 1** The JCB SiTESAFE cab on the 6T machine provides the operator safety and comfort.
- 2** An initial movement alarm warns people in the surrounding area of the machine. An optional object detection system alerts the operator to any objects near to the machine, preventing accidents and damage, whilst in operation.
- 3** The front tip and swivel tip machines come with a front mounted camera as standard to comply with visibility standards. Additionally, there is the option of upgrading to the full side and rear camera kit, further improving visibility and safety.
- 4** As an alternative to the standard ROPS frame, a ROPS/FOPS Level II frame is available, providing a greater level of safety for the operator. JCB SiTESAFE cab offers even greater levels of safety.

For even greater operator protection, an optional skip guard prevents large pieces of material falling out of the back of the skip.





Due to optimal skip geometries the 6T-2 can be loaded by a variety of machines with ease.

9T-2 SITE DUMPER.

FOR THE ULTIMATE BALANCE OF SAFETY, COMFORT AND MASS MATERIAL MOVEMENT, YOU CAN TRUST IN THE 9T-2. THE NEW SITESAFE SKIP PROVIDES BEST IN CLASS FORWARD VISIBILITY, WITHOUT COMPROMISE.

Efficient engine design.

1 The new 430 Stage V compliant 55kW engine produces 10% more torque compared to the previous model, as well as lower emissions. And with new improved cold start performance, the 9T-2 will carry on performing even in the harshest conditions.

2 Rear road lights can be folded away on site to prevent damage.

3 Optional LED work lights allow the machine and operator to carry on working even in the toughest conditions and to further improve machine visibility on site, and LED beacons are fitted as standard.

An optional white noise reverse alarm allows the machine to operate in noise sensitive areas.

Optional flexible lower steps, prevent damage when impacted.





The SiTESAFE skip gives the driver direct line-of-sight visibility without the need for a camera.

The 6T and 9T machines are both available with front tip and SiTESAFE skip variants. In addition, the 6T model has a 3rd option of a swivel tip skip.



LIVELINK TELEMATICS.

LiveLink telematics helps you monitor and manage your machine fleet remotely anywhere in the world by radically improving the efficiency, productivity, safety and security of all your JCB and non JCB machine fleet.

MACHINE EFFICIENCY: Keep track of your machine's daily activity with regular performance reports which provide information about idle time, location, machine health, error codes for diagnostics, engine utilisation by power band, safety alerts, and fuel consumption. JCB LiveLink ensures machines are kept running for maximum uptime and return on investment.

MACHINE RELIABILITY: Accurate hours and service alerts improve maintenance planning to optimise machine productivity.

MACHINE SECURITY: LiveLink's real time geo-fencing alerts tell you when machines move out of predetermined zones. Curfew alerts inform you of unauthorised usage.



Track the location of any asset via Bluetooth connection.



An after market telematics solution which can be retrofitted to any machine.



COMPLETE CONTROL FOR YOUR FLEET.

LiveLink Fleet enables you to track every aspect of your equipment to maximise efficiency and machine uptime.

GUESS LESS, KNOW MORE: Equipment issues and service reminders are logged as soon as they occur, helping you to react quickly.

YOUR EYES ON THE GROUND: Integrate LiveLink Fleet with the JCB Operator mobile app and data from your operators' daily equipment checks feed instantly into your dashboard.

TOTAL PEACE OF MIND: Operator safety alerts help to ensure machines are being used efficiently and safely.

SMARTER TOOLS. SMARTER DECISIONS: From hours worked to fuel wastage, access custom analytics on your fleet to make smarter decisions, quicker.

EFFORTLESS MEETS PAPERLESS: Access certificates, warranty information, quick start machine guides and manuals.

The JCB Operator app

THEY SPOT IT, YOU KNOW IT.

The JCB Operator app gives you faster, clearer and more accurate information about your fleet, direct from the people using your equipment each day.

STAY IN TOUCH: Get regular checks on your machine with visibility in the LiveLink Fleet portal.

TAILOR YOUR CHECKS: Customise your checklists to suit any application, customer or site.

UPLOAD TO KEEP UPDATED: Upload useful information with photos and comments.

FULLY COMPATIBLE: The JCB Operator app works with non telemetry related machines and assets.

ACCESS ALL INFORMATION: Get access to documentation such as quick start guides.

*The individual features of LiveLink Telematics, LiveLink Fleet and Operator App vary per region, engine and machine type.

FULLY SUPPORTED.

JCB'S WORLDWIDE CUSTOMER SUPPORT IS FIRST CLASS. WHATEVER YOU NEED AND WHEREVER YOU ARE, WE'LL BE AVAILABLE QUICKLY AND EFFICIENTLY TO HELP MAKE SURE YOUR MACHINERY IS PERFORMING TO ITS FULL POTENTIAL.

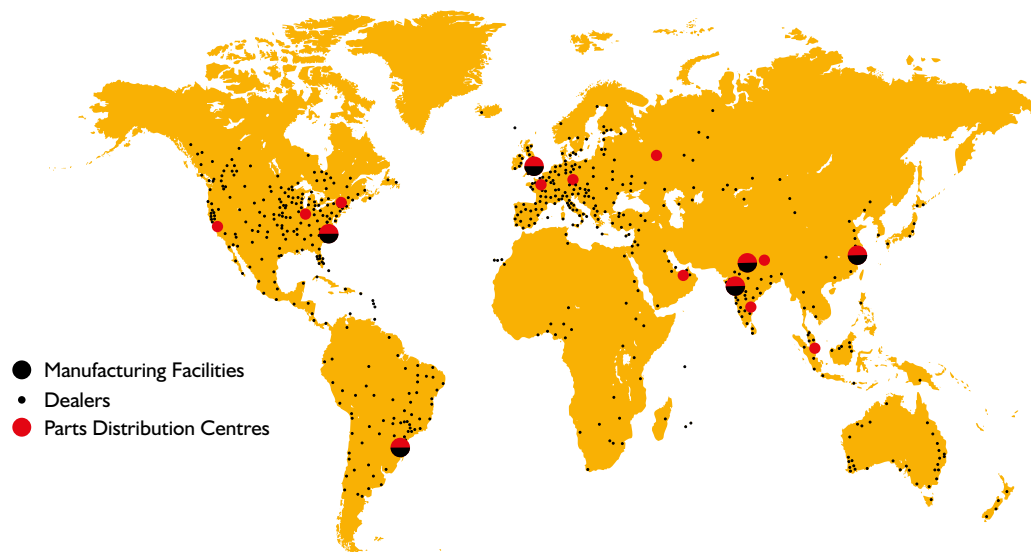


1 Our Technical Support Service provides instant access to factory expertise, day or night, while our Finance and Insurance teams are always on hand to provide fast, flexible, competitive quotes.

2 The global network of JCB Parts Centres is another model of efficiency; with 18 regional bases, we can deliver around 95% of all parts anywhere in the world within 24 hours. Our genuine JCB parts are designed to work in perfect harmony with your machine for optimum performance and productivity.

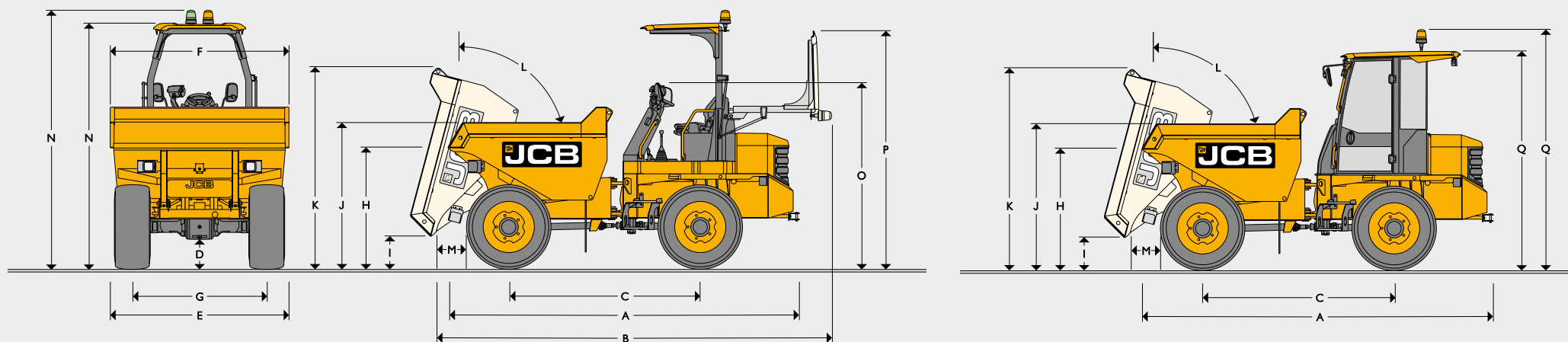


3 JCB offers comprehensive extended warranties as well as service-only or repair and maintenance contracts. Irrespective of what you opt for, our Maintenance teams around the world charge competitive labour rates, and offer non-obligation quotations as well as fast, efficient insurance repair work.



Note: JCB LIVELINK and JCB extended warranty packages may not be available in your region, so please check with your local dealer.

STATIC DIMENSIONS AND CAPACITIES



STATIC DIMENSIONS AND CAPACITIES

			6T-2 ST		1T-2 HT	3T-2 FT	3T-2 ST	6T-2 FT	6T SITESAFE Skip	9T-2 FT	9T SITESAFE Skip
A	Overall length		5047	mm	3095	3758	3926	4792	4771	4912	4918
B	Overall length (ROPS or FOPS folded)		5280	mm	3403	4192	4360	5023	5011	5141	5158
C	Wheelbase		2480	mm	1500	1950	1950	2480	2680	2680	2880
D	Minimum ground clearance		312	mm	263	206	206	312	316	359	362
E	Total width (Standard/Narrow tyres)		2255	mm	1106/980	1650	1650	2255	2300	2380	2500
F	Skip width		2018	mm	980	1650	1654	2310	2300	2500	2500
G	Track width (Standard/Narrow tyres)		1850	mm	850/782	1360	1360	1850	2225	1880	2380
I	Height to front lip of skip (untipped)		1719	mm	1134/2259	1367	1467	1672	1523	1732	1558
H	Height to front lip of skip (tipped)		1122	mm	452/1573	306	856	310	508	415	694
J	Load over height		2028	mm	1268/2392	1504	1567	1791	2150	2001	2318
K	Height over skip (tipped)		3674	mm	1865/3037	2085	2860	2411	2456	2680	2732
L	Skip tip angle		70	Degrees	90	75	67	80	75	80	75
M	Discharge distance front		582	mm	391	568	548	604	580	526	482
	Discharge distance side		241	mm	N/A	N/A	319	N/A	N/A	N/A	N/A
	Turning radius to outside of skip		5777	mm	2712	5448	4573	5900	5645	6372	6077
	Turning radius to outside of tyres		5739	mm	2559	4464	4464	5755	5526	6218	5961
	Steering angle (+/-)		30	Degrees	39	30	30	30	34	30	34
	Oscillation		10	Degrees	15	10.5	10.5	10	10	10	10
N	Height to top of ROPS (with/without beacon)		3354/3131	mm	2792/2602	3016/2835	3016/2835	3354/3131	3131/3354	3570/3347	3177/3400
N	Height to top of ROPS/FOPS (with/without beacon)		3354/3169	mm	N/A	N/A	N/A	3354/3169	3169/3354	3570/3385	3215/3400
O	Height with folded ROPS		2169	mm	1624	1857	1857	2169	2013	2319	2059
P	Height with folded ROPS/FOPS		2936	mm	N/A	N/A	N/A	2936	2936	3154	2982
Q	Height to top of cab (with/without beacon)		3296/3014	mm	N/A	N/A	N/A	3296/3014	3014/3296	3512/3230	3060/3342

*With high tip mechanism raised.

CAPACITIES									
6T-2 ST					6T SiTESAFE Skip		9T-2 FT	9T SiTESAFE Skip	
Payload	6000	kg			6000		9000	9000	
Operating weight - ISO6016 full tank of fuel & 75kg operator (ROPS)	5070	kg			TBC		5400	TBC	
Operating weight - ISO6016 full tank of fuel & 75kg operator (ROPS/FOPS)	5150	kg			TBC		5480	TBC	
Operating weight - ISO6016 full tank of fuel & 75kg operator (Cab)	5410	kg			TBC		5740	TBC	
Tipping type	Swivel tip				Front tip		Front tip	Front tip	
Skip Capacity (fluid)	1615	l			1900		2435	2170	
Skip Capacity (struck)	2514	l			2725		3735	3720	
Skip capacity (heaped)	3149	l			3300		4531	4300	

ENGINE									
6T SiTESAFE Skip			3T-2 FT	3T-2 ST	6T-2 FT	6T-2 ST		9T-2 FT	9T SiTESAFE Skip
Engine model	JCB DieselMAX		Perkins 403J-17						
Capacity	cc	4400	1662						
Aspiration	Turbocharged		Naturally Aspirated						
Cylinders	4		3						
Max. gross power to SAE J1995/ISO 14396	kW (hp)	55 (74)	18.9 (25.3)						
Max. torque	Nm	440	87.2						
Emissions compliance	Stage V		Stage V						

TRANSMISSION									
		1T-2 HT	3T-2 FT	3T-2 ST	6T-2 FT	6T-2 ST	6T SiTESAFE Skip	9T-2 FT	9T SiTESAFE Skip
Type		Hydrostatic pump to 4 hydraulic wheel motors	Hydrostatic motor via transfer box to front and rear axles		Powershuttle				
Tyre size		"255/75 x 15.3 x 8 ply (option 7.0 x 12 narrow tyre)"	295/80 x 15.3 (10 ply)		405-70-20 14PR			500-60-22.5 16PR	
Drive		Hydrostatic I/I	"2/2 (High and low range - forward and reverse) Hydrostatic - permanent 4WD"		4/4 Forward and reverse - permanent 4WD				
Max. travel speed (unladen) 1st gear	mph (kph)	7.4 (11.9)	5.0 (8) - Tortoise		3.1 (5.0)			2.8 (4.5)	
Max. travel speed (unladen) 2nd gear	mph (kph)	-	13 (21) - Hare		5.0 (8.1)			4.7 (7.5)	
Max. travel speed (unladen) 3rd gear	mph (kph)	-	-		9.4 (15.2)			8.8 (14.1)	
Max. travel speed (unladen) 4th gear	mph (kph)	-	-		15.9 (25.6)			15.3 (24.7)	

ELECTRICAL SYSTEM									
		1T-2 HT	3T-2 FT	3T-2 ST	6T-2 FT	6T-2 ST	6T SiTESAFE Skip	9T-2 FT	9T SiTESAFE Skip
System voltage	V				12				
Alternator output	A	40	65				95		
Battery capacity	Ah	80	62				110		

SERVICE FILL CAPACITIES									
		1T-2 HT	3T-2 FT	3T-2 ST	6T-2 FT	6T-2 ST	6T SiTESAFE Skip	9T-2 FT	9T SiTESAFE Skip
Hydraulic tank	l	28	35				60		
Fuel tank	l	30	35				65		

BRAKING								
	1T-2 HT	3T-2 FT	3T-2 ST	6T-2 FT	6T-2 ST	6T SiTESAFE Skip	9T-2 FT	9T SiTESAFE Skip
Working brake	Hydrostatic dynamic braking on rear wheel motors	Multi-plate in-board oil immersed discs on front axle	Foot brake-oil immersed discs on front/rear					
Parking brake	Hydrostatic dynamic braking on rear wheel motors	Over centre handbrake-oil immersed discs on front axle	Over centre parking brake-dry disc on gearbox					

OPTIONS	IT-2	3T-2	6T-2	9T-2
Folding ROPS frame	●	●	●	●
Folding ROPS/FOPS Lvl II frame	■	■	+	+
JCB SITESAFE Cab (ROPS/FOPS Level II) with heater and protective front screen	■	■	+	+
JCB SITESAFE Cab (ROPS/FOPS Level II) with heater, air cooling and protective front screen	■	■	+	+
Front Screen Guard (Only available with Cab)	■	■	+	+
Skip Guard	■	■	+	+
Reverse alarm	●	●	●	●
White Noise reverse alarm	+	+	+	+
Dual circuit breaking	■	■	●	●
Speedometer	■	■	●	●
Tie-down and lifting points	●	●	●	●
Lap belt (high-visibility orange, emergency locking retractor)	●	●	●	●
LED amber beacon	●	●	●	●
LED green beacon	●	●	●	●
Sequenced drive inhibit system	●	●	●	●
Audible alarm on initial machine movement (horn sounds twice)	●	●	●	●
Skip raised audible alarm	■	■	+	+
Seat adjustment: fore/aft, operator weight, back angle	●	●	●	●
Recovery hitch	■	●	●	●
Tow bar	■	■	+	+
Full width steering column protection	●	●	●	●
CESAR Datatag security (UK only)	●	●	●	●
Traction tyres	●	●	●	●
Narrow tyres	+	■	■	■
Wide Track	+	■	■	■
Turf tyres	■	■	+	■
High visibility steps and grab handles	+	+	+	+
Flexible steps	■	■	+	+
Rear view mirrors	+	+	+	+
Road lights	+	+	+	+
LED work lights (front and rear)	+	+	+	+
Three speed only restriction	■	■	+	+
Object detection system (requires front camera fitment)	■	■	+	+
Front Camera (Not standard on SITESAFE skip variants)	■	■	●	●
Side/Rear Cameras (requires front camera fitment)	■	■	+	+
LiveLink telematics	+	+	●	●
Rental ready decals - clear skip sides	+	+	+	+
Front bumper bar	+	■	■	■
Loose decals	■	+	+	+
Spare tyre	+	+	+	+
SMART Safety pack	+	■	■	■

- Standard
- + Option
- Not available







ONE COMPANY, OVER 300 MACHINES.

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Site Dumpers

IT-2, 3T-2, 6T-2, 9T-2

Payload: 1000 – 9000kg

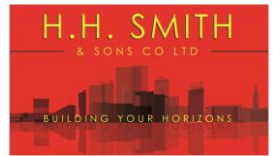
JCB Sales Limited, Rocester, Staffordshire, United Kingdom ST14 5JP.

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Appendix 2: RAMs Goods Office Yard enabling works- lift tracks & trial hole excavations

Risk Assessment Method Statement Operative Briefed Register

Site: **SIM Combined (Goods Office Yard enabling works)**

Task: **Lift trail racks and Trial excavations to expose existing arches**

Start Date: **TBC**

Duration: **TBC**

Labour: **Various – HH Smith**

Assessor: **Gareth Roberts**

Issued By: **Sam Lowthion**

Issue	Date	Comments
1	08/04/24	
2	30/01/25	Changes highlighted in Yellow

Below is the amendment record for minor or non-material revisions or amendments that do not warrant a full re-issue of the document. All such amendments are highlighted.

Amendment No	Date	Amendment	Page/s
1 (Amendments in RED)	29/07/25	SL changed working area from “Viaduct” to “Goods Office Yard enabling works”	Various
		Rail survey methodology added	P11
		Trial pit methodology added	P14

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Risk Assessment



Site	SIM Combined									
Date	30/01/25			Review Date	30/01/25		Assessor	Gareth Roberts		
Task	Excavation/ Track removal with Excavator									
Item	HAZARDS	WHO IS AT RISK	L	S	Risk	CONTROLS	Residual Risk			
							L	S	Risk	
1	Risk Pedestrian Struck by Site Plant. Serious injury	Members of Public/ Children	5	5	25	1. Proposed dig area will be suitable fenced off. 2. Only operatives involved with work will be allowed on site. 3. Banks man to work with plant operator at all times. 4. Plant delivered into site compound and will stay in site compound. 5. Public/ pedestrian will be segregated from works at all times.	1	5	5	
2	Live underground services Electrical shock, gas explosion	Operative General Site Operatives	4	5	20	1. Buried services permit issued prior to breaking any ground. 2. Check existing service drawings for area. If not available cat scan area. 3. Competent operative with relevant qualification to cat scan area. 4. Highlight on the ground and drawings any services detected. 5. Notify/ brief the site manager/ supervisor/ personnel digging of any services detected. 6. No mechanical digging allowed within 1 m of any services identified. 7. Adopt safe digging practices, any live services detected MUST be hand dug & all services runs exposed within the proposed dig area. 8. Live services exposed must be suitable protected/ highlighted. 9. Banks man to work with plant operator and check for any sign of services whilst excavating. 10. If depth of cable cannot be detected with cat scan & genny it has to be presumed the cable could be at any depth (within tarmac, concrete base etc.) and isolate cable at source until service is exposed.	1	5	5	

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Risk Assessment



3	Use of excavator Pedestrians/ Building Struck by machine	Operative General Site Operatives	4	5	20	<ol style="list-style-type: none"> 1. Plant must be operated by a competent person with relevant license. 2. Plant will be hired from supplier, all relevant LOLER certificates & services documents can be requested from Hire Company. 3. Machinery will be inspected prior to first use & daily thereafter by the operative. All findings will be recorded on HH Smith's Plant inspection forms daily. 4. Work area will be segregated from pedestrian areas, barriers placed around works. 5. Plant must be tuned off, keys removed from ignition & kept safe if plant is left unsupervised. 6. Operative/ banks man to wear ear defenders when plant is pecking out concrete. 7. A dig permit must be issued prior to breaking any ground. 	1	5	5
4	Plant attachments not suitable/ defective Risk of unplanned release of bucket etc causing serious injury or damage to properties	Operative General site personnel Public	4	5	20	<ol style="list-style-type: none"> 1. Quick hitch / attachments to be inspected daily & any defects to be reported, fixed or replaced. 2. All components needed to secure attachments must be in place before use. 3. <u>NO LIFTING TO BE DONE OVER ANY PERSON OR PEDESTRIAN ROUTES.</u> Work area to be fenced off if possible. 4. Pins securing attachments must be fixed in place. 5. Use attachments/ locking mechanisms as per manufactured instructions & guidance. 6. Do not disable safety switches or procedures. 7. Do not use plant if damaged or defective, report <u>IMMEDIATELY</u> to site manager. 	1	5	5
5	Excavation crossing pedestrian route. Risk of plant striking employees	Operative General Workers on site	4	5	20	<ol style="list-style-type: none"> 1. Excavation route crosses existing pedestrian routes. 2. Excavation must be barrier off & covered over if required. 3. Barrier around the excavation and places suitable cover over excavation for pedestrian crossing points over the excavation. 4. Segregate work area from pedestrian routes. 5. Keep pedestrians away from plant movements. 6. Use banks man to guide & supervise plant operators. 	1	5	5

Risk Assessment



6	Debris Falling from Height Struck by debris/ tools	General Site Operatives	2	5	10	1. Store soil away from the edges 2. No materials or equipment should be stored near the footings edges.	1	5	5
7	Working near other tasks/ pedestrians. Risk of serious injury	General Workers on site	3	4	8	1. Fence excavation work area off with suitable barriers. 2. Barriers must be left to secure the work area until works are complete. 3. Keep pedestrians away from plant movements. 4. Use banks man to guide & supervise plant operators.	1	4	4
12	Removal of track fixings Risk of injury/disease	Operatives	3	5	15	1. Ensure operatives are wearing gloves following company hygiene policies 2. When track fasteners are removed safety glasses must be worn where fragments may become airborne 3. Use of bar extensions to be used to reduce strain on operatives when removing bolts 4. Where fixings require the track to be lifted to allow removal, track MUST be secured via a chain/sling as per the provided lifting plan by a competent persons.	1	5	
13	Viaduct access Risk of slip and trip	Operative General Site Operatives Visitors/ Public	3	4	12	1. Site PPE must be adhered to ensuring adequate steel toe boots are worn in good condition with tread 2. People must be made aware of the uneven surface, not to stand on the sleepers or tracks especially after precipitation.			

Calculation of RISK LEVEL - **L**ikelihood x **S**everity = Risk (score)

Likelihood is 1 could never happen, 2 very unlikely, 3 Possible, 4 likely, 5 very likely

Severity is 1 very slight, 2 minor, 3 significant, 4 major, 5 fatal

Score 1 -9 = Low 10 – 18 Medium 19-25= High

H.H. Smith & Sons Co. Ltd.

Risk Assessment



Site	SIM Combined									
Date	30/01/2025			Review date	30/01/2025		Assessor	Gareth Roberts		
Task	Excavator Operation									
Item	HAZARDS	WHO IS AT RISK	L	S	Risk	CONTROLS	Residual Risk			
							L	S	Risk	
1	Untrained person operating plant Risk of injuring or damage to property	Operative General site personnel Public	4	5	20	1. Only competent persons with a valid and sufficient license will operate plant. 2. All operatives license to be checked by site manager prior to operating machinery. 3. Copies to be kept in site office of operatives license if not possible operative must keep license on site so it can be displayed on request. 4. Plant must be switched off, keys removed and kept in safe place when plant is left unsupervised.	1	5	5	
2	Plant damaged/ defective Risk of machinery failing causing serious injury or damage to property.	Operative General site personnel Public	3	5	15	1. Machinery must be inspected prior to first use by the operative or a competent person and findings recorded and kept on site. 2. Copies of plant test certification etc. will be kept in the site office. 3. Machinery to be inspected daily and the finding recorded and kept on site. 4. Any defects must be reported immediately and competent person to fix defects. 5. Plant will be services as required by manufactures competent person to services or fix defects & records will be kept on site.	1	5	5	
3	Plant attachments not suitable/ defective Risk of unplanned release of bucket etc causing serious injury or damage to properties	Operative General site personnel Public	4	5	20	1. Quick hitch / attachments to be inspected daily & any defects to be reported, fixed or replaced. 2. All components needed to secure attachments must be in place before use. 3. <u>NO LIFTING TO BE DONE OVER ANY PERSON OR PEDESTRIAN ROUTES.</u> Work area to be fenced off if possible. 4. Pins securing attachments must be fixed in place. 5. Use attachments/ locking mechanisms as per manufactured instructions & guidance. 6. Do not disable safety switches or procedures.	1	5	5	

						7. Do not use plant if damaged or defective, report IMMEDIATELY to site manager.			
4	Pedestrians & property being struck Risk of serious injuries or damage	Operative General site personnel Public	4	5	20	1. Pedestrian and machinery routes to be segregated 2. Machinery work area to be fenced off to stop pedestrians accessing near machinery activities. 3. Windows near work areas will be boarded over creating a void between glass and board. 4. Banks man to be used to guide machinery 5. All workers must wear Hi visibility vests.	1	5	5
5	Plant Overturning Risk of serious injury or damage	Operative General site personnel Public	3	5	15	1. Plant must be operated by competent person. 2. Ground conditions to be inspected prior to works commencing to access suitability for machine access routes near slopes etc. 3. Stone etc suitable material) will be used to make access routes suitable. 4. Check machine lifting safe loads prior to lifting any weights. Check manufactures guidelines.	1	5	5
6	Services: Underground/ overhead Risk of serious injuries or damage	Operative General site personnel	5	5	25	1. Ground survey to be done prior to excavation. Catt scan, trail holes, existing service drawings 2. If services is found hand dig to expose services. 3. Overhead, Erect goal post near lines. 4. Divert access routes away from overhead lines. 5. Operative to report all unknown services found to contract administrator.	1	5	5
7	Lifting operations Risk of serious injuries or damage	Operative General site personnel Public	5	5		1. Lifting plan to be completed before any lifting operations can take place 2. Valid LOLER ticket to be present for chains and the excavator before use 3. Equipment to be inspected daily/ before use to ensure is in a safe and suitable condition 4. Check machine lifting loads, safe loads prior to lifting and tracks. Check manufacturers guidelines	1	5	5

Calculation of RISK LEVEL - Likelihood x Severity = Risk (score)		
Likelihood is	1 could never happen, 2 very unlikely, 3 Possible, 4 likely, 5 very likely	
Severity is	1 very slight, 2 minor, 3 significant, 4 major, 5 fatal	
Score	1 -9 = Low	10 – 18 Medium
		19-25= High

H.H. Smith & Sons Co. Ltd.

Risk Assessment



Site	SIM Combined				
Date	30/01/2025	Review Date	30/01/2025	Assessor	Gareth Roberts
Task	Use of Dumper				

Item	HAZARDS	WHO IS AT RISK	L	S	Risk	CONTROLS	Residual Risk		
							L	S	Risk
1	Untrained person operating plant Risk of injuring or damage to property	Operative General site personnel Public	4	5	20	<ol style="list-style-type: none"> Only competent persons with a valid and relevant license will operate plant. All operatives license to be checked by site manager prior to operating machinery. Copies to be kept in site office of operative's license if not possible operative must keep license on site so it can be displayed on request. Plant must be switched off when left unsupervised. Keys must be removed and kept in safe place when plant is left unsupervised. 	1	5	5
2	Plant damaged/ defective Risk of machinery failing causing serious injury or damage to property.	Operative General site personnel Public	3	5	15	<ol style="list-style-type: none"> Machinery must be inspected prior to first use by the operative or a competent person and findings recorded and kept on site. Copies of plant test certification etc. will be kept in the site office. Machinery to be inspected daily and the finding recorded and kept on site. Any defects must be reported immediately and competent person to fix defects. Plant will be services as required by manufactures competent person to services or fix defects & records will be kept on site. 	1	5	5
3	Loading of Dumper Operatives struck by plant/ dumper overturning.	Operative General site personnel	4	5	20	<ol style="list-style-type: none"> Prior to loading of dumper operative will switch dumper off and get down from seat and stand clear of plant. Under no circumstance should any person stay on dumper whilst it is being loaded up. 	1	5	5
4	Pedestrians & property being struck Risk of serious injuries or damage	Operative General site personnel Public	4	5	20	<ol style="list-style-type: none"> Pedestrian and machinery routes to be segregated Machinery work area to be fenced off to stop pedestrians accessing near machinery activities. Dumper will have a Audible warning sound for when reversing. 	1	5	5

						<ul style="list-style-type: none"> 4. Banks man to be used to guide machinery. 5. Warning beacon/ orange light to be switched on whilst plant is in operation. 6. All workers must wear Hi visibility vests. 			
5	Plant Overturning Risk of serious injury or damage	Operative General site personnel Public	3	5	15	<ul style="list-style-type: none"> 1. Plant must be operated by competent person. 2. Ground conditions to be inspected prior to works commencing to access suitability for machine access routes near slopes etc. Checks to be made for underground voids or drainage near dumper access routes. 3. Access ramps must be suitable compacted and rolled prior to accessing. 4. Stone etc suitable material) will be used to make access routes suitable. 5. Seat belt must be on operative at all times, only undo when leaving dumper. 6. Dumper must not be over loaded. 7. Dumper must have roll bar, roll bar must be in the correct position over driver when dumper is in operation. 	1	5	5
6	Dumper tipping load Load falling on persons, dumper falling.	Operative General site personnel Public	3	5	15	<ul style="list-style-type: none"> 1. Banks man to guide dumper to the required position. 2. Tipping area will be kept clear, banks man to ensure area in front of dumper is clear, banks man to stand clear of tipping area. 3. Dumper operative to tip load in suitable place or where required. 4. Dumper to stay as far away from excavation edges when tipping, if tipping near edges is required suitable barriers must be installed to stop the dumper from rolling forward/ falling over the edge. 	1	5	5
7	Lifting Equipment (Chains) Risk Of serious injury	Operatives General Site personnel	4	5	20	<ul style="list-style-type: none"> 1. Operatives to remain clear from underneath suspended loads 2. Loads to be lifted at their central point of gravity 3. Only competent persons to attach chains to load 4. Excavator audible SWL must in working order (if applicable) 5. All lifting equipment must have a valid LOLER inspection available on site 6. All lifting equipment must have LOLER examination every 6 months 7. SWL of accessories must not be exceeded 8. Accessories must be checked for defects prior to use should any be found, they must not be used and defect reported to the Supervisor 			

8	Use of Excavator for lifting operations Materials falling from height/overturning	Operatives General Site personnel	4	5	20	<ol style="list-style-type: none"> 1. Ensure the machine is suitable for the task and the load to be lifted is within the SWL of the machine 2. Competent operative to operate the machinery with the relevant CSCS/NPORS 3. Ensure the Safe Loading indicator is operational 4. Only competent operatives to attach loads to lifting accessories 5. Area must be suitably cordoned off, Loads must NEVER be lifted over operatives or pedestrian areas 6. Plant to be used must have a valid LOLER within 12 months and must have daily plant inspections undertaken by a competent operative 7. Ground must be suitable and of hard standing to hold the mass of the plant and load 8. Always undertake a test lift 9. Plant must maintain balance with the loads center of gravity close to the machine. 			
9	Use of plant to lift and transport Tracks Pedestrians/ Building struck by machine	Operatives General Site personnel	4	5	20	<ol style="list-style-type: none"> 1. Only competent people with relevant competencies to operate machinery 2. Work area must be segregated from public areas and other site operative areas 3. Should the tracks extend beyond 5m the track must be lifted from one end and dragged in accordance with the lifting plan 4. Keep the load steady and transport at low reasonable speed, load must not swing or become unstable. 5. Ground must be suitable to drive on, machine should undertake a test drive 			
10	Use of plant to lift and transport Tracks Pedestrians/ Building struck by machine	Operatives General Site personnel				<ol style="list-style-type: none"> 5. Check safe lifting load of plant/ machine, (displayed on plant, check manufacture instructions) weight being lifted must not exceed the SWL of machine/ plant. 6. No attachment (bucket etc.) must be on plant/ machine when lifting. 7. Use suitable lifting equipment/ chains with valid LOLER certs. 8. Lifting equipment/ chains/ block grab must be inspected and examination certificates on site. 9. Lifting equipment to be suitable attached to the plant/ machine. 			

					<p>10. Plant/machine to travel at slow steady pace to avoid load from swaying.</p> <p>11. Do not lift Packs more than 500mm of the ground when travelling, if lifting it height attached safety netting under pack and attached to block grab.</p> <p>12. Do not lift over pedestrians/ no person to access directly under load.</p> <p>13. Pedestrians to stay away from load whilst being lifted and moved.</p> <p>14. Once load is safely on the stillage and supported access near load and remove lifting equipment.</p>			
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Calculation of RISK LEVEL - L ikelihood x S everity = Risk (score)			
Likelihood is	1 could never happen, 2 very unlikely, 3 Possible, 4 likely, 5 very likely		
Severity is	1 very slight, 2 minor, 3 significant, 4 major, 5 fatal		
Score	1 -9 = Low	10 – 18 Medium	19-25= High

Removal and storage of track sections

Location of works:

SIM Combined, Goods Office Yard enabling works

Brief Description:

A Risk Assessment (find attached) has been carried out in order to assess the risks to employees posed by removal of the tracks with the use of an excavator.

The arrangements will take in account the required legislations.

Rail Survey, Tagging and Removal

- All rail lines above the arches will be **surveyed** and locations recorded.
- Each rail line will receive a **bespoke identity tag**, securely attached and clearly labelled on site.
- The location of each tagged line will be **accurately plotted onto a coordinated CAD drawing** for permanent record and future reference to aid with design.

Rail removal will be carried out in accordance with the approved Lifting Plan and Risk Assessment.

Area will be fenced off with barriers.

Track fasteners and sleeper plates to be disconnected from the rails and stored in a suitable location.

Rail joint bars to be removed allowing the separation of rails into smaller sections.

Use of bar extensions/adjustable spanner to be used on seized bolts, these must be checked daily for defects found they **must immediately be taken out of use and reported to the site manager**.

Excavator to be used with suitable shackle within date LOLER certificate.

Competent operative with relevant qualifications to operate the excavator to use the machine.

Plant must be inspected daily by operator before first use & findings recorded.

Use of a 4-leg chain/sling attached to excavator for lifting of the tracks.

Slings/chains must only be attached while the track is on the ground and stable

Tracks must be attached to the excavator by a competent persons

Tracks **MUST** never be lifted above operatives or pedestrian areas.

When fixtures/sleepers remain attached to the track requiring removal the track must be secured by a sling/chain prior to operatives working on the section of track

Use of bar/Hammer may only be used once the track has been safely placed back onto the ground

Where a hammer is used goggles **MUST** be worn by the operative and those in the affected area

Where tracks are over 5m in length they **MUST** not be lifted

If the track is below 5m the chains should be attached equally offset from the center to ensure a balanced center of gravity to ensure stability of the load

Keep load steady and transport at low reasonable speed, load must not swing or become unstable. A strap may be attached to an end and dragged providing a clear path that has been created

Chains must be tagged and have valid LOLER tickets and be inspected for defects before use.

Lifting plans MUST be available on site and followed.

Operatives MUST wear gloves when handling the tracks.

Should any defects be found, they MUST be removed from use immediately and reported to the site manager.

Banksman to be used with the excavator to supervise the lift and ensure the tracks are secure before lifting.

Extra banksmen to be used as plant moves ensuring the track always remains stable.

Tracks to be stored on site with suitable skids below to allow safe removal of chains.

Where tracks are stored, they must not be stored above waist height, they must be suitably stored out of the way of access areas and away from pedestrian areas.

Where pedestrians are at risk of being struck by moving plant workers must stop and allow safe passage ensuring full control of the track is maintained.

Track storage areas MUST be within the site hoarding/fencing.

Operatives MUST not stand on the stored tracks/sleepers.

Inspect adjacent buildings, boundary wall or fence (any structure close to excavations) daily & report any subsidence or damage.

Operatives MUST employ handwashing in accordance with the HHS hygiene policy after any work has taken place in the arranged welfare set up.

Trial pits and remove ballast with excavator

Location of works:

SIM Combined, Goods Office Enabling works

Brief Description:

A Risk Assessment (find attached) has been carried out in order to assess the risks to employees posed by reducing the level of the ground with the use of an excavator.

The arrangements will take in account the required legislations.

Area will be fenced off with barriers.

The area must be cat scanned before any works can commence.

Competent operative with relevant qualification to cat scan area.

Any live services detected with the cat scan will be hand dug & all runs exposed within the work area.

Live services exposed must be suitable protected/ highlighted.

Banks man to work with plant operator and check for any sign of services whilst excavating.

If depth of cable cannot be detected with cat scan & genny it has to be presumed the cable could be at any depth (within tarmac, concrete base etc.) and isolate cable at source until service is exposed.

No mechanical digging allowed within 1 m of any services identified.

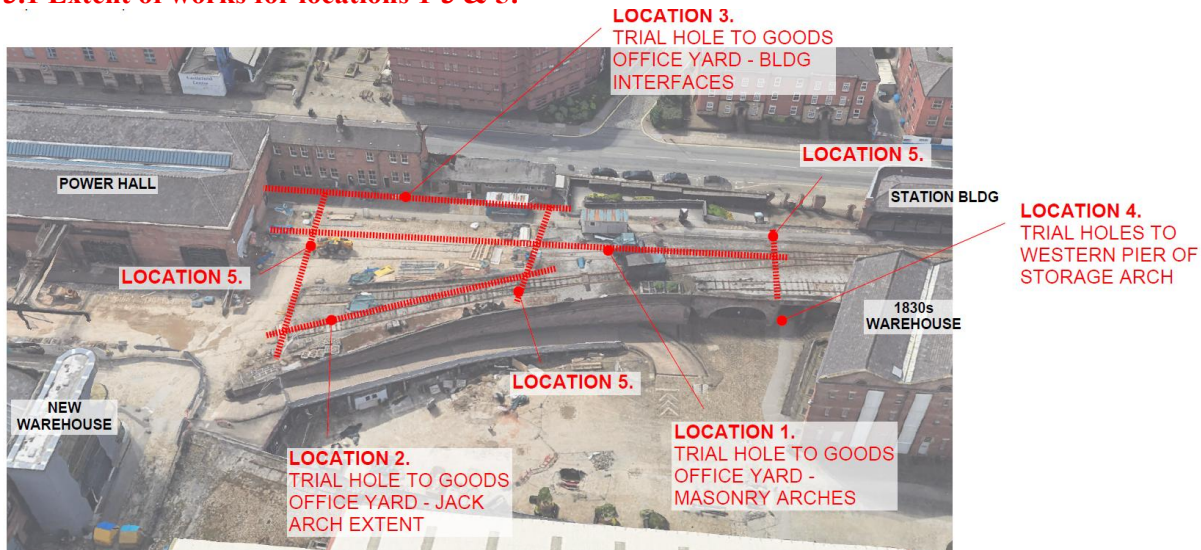
Hand dig only to expose service detected.

A banks man must guide the excavator at all times when moving/ driving outside the site area or any other roads.

Sequence of Works:

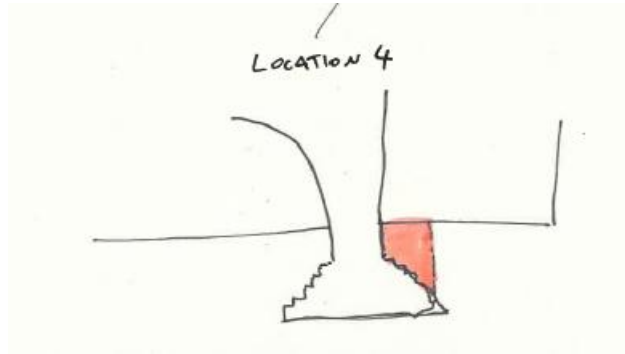
Methodology

3.1 Extent of works for locations 1-3 & 5:



- Strips/trial holes to be **no wider than 1.25m x 1.25m**
- At all times, excavation will be balanced to maintain **equal loading across all arches.**
- Continuous visual monitoring and level checks will be undertaken to verify uniform progress.
- Due to the listed status, if anything of archaeological interest is uncovered all works will be ceased until the relevant parties have reviewed.

3.1.1: Location 4



- Methodology generally as per above.
- Trial pits to be placed anywhere along western pier, both inside & outside faces. Depth of trial pits will be determined on site to suit the depths of foundations.

3.2 Load Management Over Arches

- The arches beneath are assumed to have the **same loading constraints** as those considered in Viaduct Phase 1.

	STATION VIADUCT BALLAST REMOVAL NEEDS TO BE CAREFULLY CONSIDERED TO ENSURE THAT THE UNDERLYING ARCHES ARE NOT SUBJECT TO UNBALANCED LOADING. CONTRACTOR TO DEVELOP A PROPOSAL AND METHOD STATEMENT OF WORK SEQUENCING.
	<p>THE STORAGE ARCH (DIRECTLY ADJACENT TO CONCRETE BRIDGE) IS ANTICIPATED TO BE USED AS PART OF SITE TRAFFIC ROUTE. THIS ARCH IS KNOWN TO BE DEFECTIVE WITH REDUCED LOAD-CARRYING CAPACITY. THE FOLLOWING RESTRICTIONS ARE IMPOSED FOR THE DURATION OF THE WORKS:</p> <ol style="list-style-type: none">1. THE SPEED OF VEHICLES SHOULD BE RESTRICTED TO A MAXIMUM OF 5MPH.2. ASYMMETRIC LOADS OR POINT LOADS SHOULD NOT BE APPLIED DIRECTLY TO THE EXISTING ARCH EXTRADOS.3. SUITABLE LOAD DISTRIBUTION MUST BE PLANNED IF THE BALLAST AND FILL OF THE ARCH IS STRIPPED.4. A STRICT LOAD FREE ZONE ($\leq 5\text{KN/M}^2$) WITHIN THE DISTANCE D OF AN ANGLE OF 45° FROM THE PIER OF THE NORTH SPANDREL WALL (D = CA. 3.5M CONSIDERING THE RISE OF THE ARCH).5. A GENERAL LIMITATION OF A UNIFORMLY DISTRIBUTED LOAD OF 17KN/M^2 OR AXLE LOAD OF 115KN/AXLE.6. A MONITORING REGIME IS UNDERTAKEN WHILE RUNNING WORKS TO MAKE SURE THAT NO CRITICAL DISPLACEMENTS OCCUR.

- Only pre-approved machinery from Viaduct Phase 1 will be used to **avoid overloading**.
- No stockpiling of material or plant movements will be permitted directly above or adjacent to sensitive arch locations.

Site fencing must be kept shut & secured at all times.

No unauthorised person must be allowed on site, only operatives involved with reduce dig to be allow on site.

Engineer to set out levels/ area that the ground has to be reduced by around site.

Proposed dig area to be scanned for services with a cat scan & genny.

Cat scan & genny to be done by competent operative.

Use cat scan & genny as per the manufactured instructions.

A competent operative with the relevant qualification to use a Gennie & CAT scan to track any services/ pipes.

Connect the genie to service as required to determine the depth of the service.

Track services with the CAT scan.

Using the CAT scan with the genie connected to the service the depth of the services can be found.

If depth of cable cannot be detected with cat scan & genny it has to be presumed the cable could be at any depth (within tarmac, concrete base etc.) and isolate cable at source until service is exposed.

Record findings on a services survey, please find attached.

Highlight/ mark any services detected or any know services around site.

Relay services survey to excavator operator & issue a dig permit & buried services permit, attached.

If possible, operative who carried out cat scan/ services survey to work as banks man with excavator operator.

If services have been detected with the CAT scan operatives must hand dig the area to expose the service.

Soil around services should be hand dug & exposed.

Excavator with suitable bucket attachment will be used to excavate soil.

Competent operative with relevant qualification to operate excavator.

Plant must be inspected daily by operator before first use & findings recorded.

Excavator operator to commence reduce level excavation.

Banks man to work with excavator operator and supervise the dig area as it is being excavated.

Soil will be stored on a suitable place on site.

Soil will be removed from site at regular intervals on wagons.

If needed a dumper will be used to transport the soil away from the excavation area.

Competent operative with relevant qualification to operate dumper.

Plant must be inspected daily by operator before first use & findings recorded.

When dumper is being loaded with soil by excavator dumper operator to stand away from dumper and must not stay/ sit on dumper.

Excavated soil will be loaded with a grab wagon, banks man to work with grab operator.

Soil will be reduced to the required level.

Where the ground level sides are above an operative's head when an operative is bent down in the ground must be suitable supported with sheet piles or battered back, stepped backed.

Where excavation cannot be battered back, suitable support will be used to support the sides from collapsing.

Where pedestrians can fall into excavation from height suitable edge protection must be erected.

Edge protection must be able to withhold the weight of a worker when falling onto it.

Example; Scaffold tubes driven deep into ground with herras/ steel pedestrian barriers fixed to scaffold tubes.

Visual edge protection that cannot withhold the weight of a worker falling onto it must be at least 2m away from the edge.

Fence edges off or cover footing with suitable material after each work shift.

Inspect adjacent buildings, boundary wall or fence (any structure close to excavations) daily & report any subsidence or damage.

PPE requirements

The following PPE is a standard minimum requirement on site & must be worn at all times. Further PPE may be required as identified within task specific RA requirements.

HH Smith work areas;

- Hard Hat
- Hi visibility vest
- Safety footwear with steel mid sole & steel toe cap
- Trousers that cover legs (no shorts/ ¾ trousers)

Equipment / Machinery/ Materials needed (PPE required)

Equipment / Machinery/ Materials	PPE Requirements
Excavator	Standard Site PPE
Dumper	Standard Site PPE
Hand tools	Standard Site PPE, gloves

Permit to work / Inspections

Task/ equipment	Permit required
Plant	Inspect plant daily & record findings on plant inspections forms. Valid & in date LOLER certificate required for machine lifting.
Excavations	Dig permit.
Services/ Cat scan	Cat scan service survey & permit to work.
Lifting operations	

Lifting Plan to completed by a competent persons

Specific Training Arrangements for equipment/plant

HH Smith Operatives to report to the site office for a site induction.

Equipment / Machinery	Specific training
Cat Scan	Suitable qualification. Use as per manufacture instruction & guidance. Calibration certificate for cat can valid & in date.
Excavator	CPCS card with relevant category for excavator.
Dumper	CPCS card with relevant category for dumper.
Manual handling	0.5 day awareness course.
Hand tools	Use as per manufacture instruction & guidance.

First Aid Arrangements

Operatives will be briefed on the first aid arrangements & first aider on site at the site induction.

HH Smith Site manager & various others on site have attended a 3 day first aid at work course.

The details of the first aider & directions to nearest A&E will be displayed within the site office & canteen notice boards.

Welfare Arrangements

Operatives will be briefed on welfare arrangements at the site induction.

Operatives can use the existing welfare on site.

The W/C facilities must be kept clean, maintained and left as previously found!!

Emergency Procedures

Operatives will be briefed on emergency arrangements at the site induction.

Operatives must adhere to the emergency procedures at all times.

All Fire Escape/ break glass points/ alarms MUST be maintained at all times, do not store any materials or equipment in front of escape doors or on emergency escape routes.

[illegible]

**RA, MS & COSHH Assessment Register**

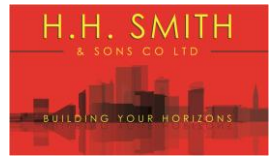
In signing this form I the undersigned confirm that I have been briefed on all aspects of the forthcoming work and fully understand the method of work and associated risk and that I have been briefed on all Site requirements and relevant PPE relating to the task.

Name of Operative	Signature Operative	Date

Site Supervisor declaration

I _____ as designated supervisor/manager can confirm that I have briefed the above operatives in all aspects of the method statement, risk assessments and the Site Health, Safety & Emergency Rules.

Signed:		Date:	
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Appendix 3: Lifting plan SIM Goods Office Yard enabling works- Tracks Below 5m

LIFTING PLAN – Track lifting



Contract:	SIM Good Office Yard enabling works		Date:	23/04/25
Scope of Work:	Excavator to lift train tracks			
Make of Excavator:		Model of Excavator:		
Appointed Person:	TBC	Signature:		

This Lifting Plan must be completed by a competent Appointed Person. All sections must be completed or marked not applicable. Additional information should be attached if required *

1.	Has a Risk Assessment been carried out and communicated to all personnel involved?	Yes
2.	Is a detailed Method Statement required?	Yes
3.	Details of load to be lifted; include weights, lifting radius, dimensions, lifting points and unusual characteristics	Train track sections, Mass is approx. (70kg/m) Length over 5m To be lifted through a strap/chain placed at the end of the rail and pull rail to storage location
4.	How has the load bearing capacity of the ground been assessed?	Yes
5.	Details of ground conditions - have checks been carried out for: U/g services, ducts, drains, excavations etc?	Stable ground buildup of 6F2 CAT scan survey completed (Barry Stenson) No overhead services
6.	What size and type of outrigger spreader pads are required?	Na
7.	Are the crane duties adequate for the lifting operations being undertaken?	Yes, daily check of the plant and chains
8.	Name of person(s) appointed as Slinger / Signaller	TBC
9.	Name of trained Appointed Person(s)	TBC
10.	Name of person(s) appointed as Supervisor	TBC
11.	Driver's name, CPC or equivalent card number and expiry date	TBC
12.	Agreed method of communication	Hand Signals and verbal communication
13.	Type of lift	General Site
14.	Type of equipment; detail make, model and capacity	TBC
15.	Date of last Thorough Examination of lifting equipment (within 12 months for materials and 6 months for persons)	TBC
16.	Details of lifting gear to be used; slings, lifting forks with net, spreader beam etc. Include details of last examination (within 6 months) and how lifting gear is to be connected to load	4-leg chains: 6 monthly LOLER inspections and daily pre-use checks D ring 5T Slings: 3T, 3M webbed slings, pre-use checks
17.	Details of where lifting equipment will be sited or operating	Over existing arches
18.	Will tag lines be required?	No
19.	Is the operating area safe? Consider overhead obstructions, access for the crane, load path, set down area, vehicle loading / unloading, prohibiting unauthorised access, lighting, need for road / rail closures	The site poses some potential risks as the grade two listed warehouse and 1830s station building are located either side and there is potential risk of a collision should there be a loss of control
20.	Are there any other requirements?	No
21.	Date and duration of operation	TBC
22.	Name / signature of Appointed Person completing this plan	TBC

Sections 4 & 5 are critical and must be completed prior to siting the hoist.

*** The Lifting Operations and Lifting Equipment Regulations 1998 apply to any item of lifting equipment.** Regulation 8 requires "Every employer to ensure that every lifting operation involving lifting equipment is properly planned..." For routine lifting operations an initial plan may only be required once but should be reviewed occasionally to make sure that nothing has changed. For complex lifting operations a plan is required for each operation.

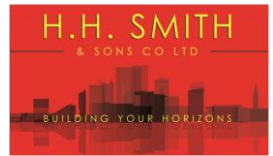
LIFTING PLAN COMMUNICATION

SKETCH



**SIGNATURE OF PERSONNEL INFORMED OF LIFTING PLAN REQUIREMENTS:
 RECEIVED, READ AND UNDERSTOOD.**

NAME (PRINT)	COMPANY (Full not initials)	SIGNATURE	DATE



Appendix 4: Lifting Plan SIM Goods Office Yard enabling works- Tracks over 5m.

LIFTING PLAN – Track lifting



Contract:	SIM Goods Office Enabling works		Date:	23/04/25
Scope of Work:	Excavator to lift train tracks			
Make of Excavator:		Model of Excavator:		
Appointed Person:	TBC	Signature:		

This Lifting Plan must be completed by a competent Appointed Person. All sections must be completed or marked not applicable. Additional information should be attached if required *

1.	Has a Risk Assessment been carried out and communicated to all personnel involved?	Yes
2.	Is a detailed Method Statement required?	Yes
3.	Details of load to be lifted; include weights, lifting radius, dimensions, lifting points and unusual characteristics	Train track sections, Mass is approx. (70kg/m) Length over 5m To be lifted through a strap/chain placed at the end of the rail and pull rail to storage location
4.	How has the load bearing capacity of the ground been assessed?	Yes
5.	Details of ground conditions - have checks been carried out for: U/g services, ducts, drains, excavations etc?	Stable ground buildup of 6F2 CAT scan survey completed (TBC) No overhead services
6.	What size and type of outrigger spreader pads are required?	Na
7.	Are the crane duties adequate for the lifting operations being undertaken?	Yes, daily check of the plant and chains
8.	Name of person(s) appointed as Slinger / Signaller	TBC
9.	Name of trained Appointed Person(s)	TBC
10.	Name of person(s) appointed as Supervisor	TBC
11.	Driver's name, CPCS or equivalent card number and expiry date	TBC
12.	Agreed method of communication	Hand Signals and verbal communication
13.	Type of lift	General Site
14.	Type of equipment; detail make, model and capacity	8.5Ton 360 excavator, Hitachi ZX85USB-5 Min Pickup: 965kg (full extension) Max Pickup: 4383kg (Dozer down at 0m extension)
15.	Date of last Thorough Examination of lifting equipment (within 12 months for materials and 6 months for persons)	Excavator: TBC Once excavator on site Chains: TBC once chains on site
16.	Details of lifting gear to be used; slings, lifting forks with net, spreader beam etc. Include details of last examination (within 6 months) <i>and how lifting gear is to be connected to load</i>	4-leg chains: 6 monthly LOLER inspections and daily pre-use checks D ring 5T Slings; 3T, 3M webbed slings, pre-use checks
17.	Details of where lifting equipment will be sited or operating	Over existing arches
18.	Will tag lines be required?	No
19.	Is the operating area safe? Consider overhead obstructions, access for the crane, load path, set down area, vehicle loading / unloading, prohibiting unauthorised access, lighting, need for road / rail closures	The site poses some potential risks as the grade two listed warehouse and 1830s station building are located either side and there is potential risk of a collision should there be a loss of control
20.	Are there any other requirements?	No
21.	Date and duration of operation	TBC
22.	Name / signature of Appointed Person completing this plan	TBC

Sections 4 & 5 are critical and must be completed prior to siting the hoist.

*** The Lifting Operations and Lifting Equipment Regulations 1998 apply to any item of lifting equipment.** Regulation 8 requires "Every employer to ensure that every lifting operation involving lifting equipment is properly planned..." For routine lifting operations an initial plan may only be required once but should be reviewed occasionally to make sure that nothing has changed. For complex lifting operations a plan is required for each operation.

LIFTING PLAN COMMUNICATION

SKETCH



**SIGNATURE OF PERSONNEL INFORMED OF LIFTING PLAN REQUIREMENTS:
 RECEIVED, READ AND UNDERSTOOD.**

NAME (PRINT)	COMPANY (Full not initials)	SIGNATURE	DATE