

# CULHAM STORAGE LIMITED

**CONSTRUCTION TRAFFIC MANAGEMENT PLAN** 



# Contents

1.	Introduction	3
	Purpose of the report	3
	Development Proposals	3
	Site Working Times (TBC)	5
	Construction Overview	7
2.	Predicted Construction Vehicle Numbers	8
	Heavy Goods Vehicles	8
	Workforce	8
	Typical Daily Profile of Construction Traffic Movements	.10
	Operational Phase	.11
	Decommissioning	.11
3.	Proposed HGV Route To and From the Site	.12
	Route Description	.12
	Road Condition Survey	.13
4.	Vehicle Access to the Site	.14
5.	Management of On-Site Areas	.15
	Controlled Access	.15
	Construction Compound	15
	Site Access Tracks	.15
	Site Access Tracks Unloading of Larger Elements	.15
	Site Access Tracks Unloading of Larger Elements Vehicle Wheel Washing Facilities	.15 .15 .16 .17
	Site Access Tracks Unloading of Larger Elements Vehicle Wheel Washing Facilities Site Materials Migrating on to the Public Highway	.15 .16 .17 .17
6.	Site Access Tracks Unloading of Larger Elements Vehicle Wheel Washing Facilities Site Materials Migrating on to the Public Highway Public Rights of Way	.15 .16 .17 .17 .17
6. 7.	Site Access Tracks Unloading of Larger Elements Vehicle Wheel Washing Facilities Site Materials Migrating on to the Public Highway Public Rights of Way Management of Construction Traffic	.15 .16 .17 .17 .17 .19 .21
6. 7.	Site Access Tracks Unloading of Larger Elements Vehicle Wheel Washing Facilities Site Materials Migrating on to the Public Highway Public Rights of Way Management of Construction Traffic. Cumulative Impact.	.15 .16 .17 .17 .17 .19 .21



# 1. Introduction

## Purpose of the report

- 1.1 This report has been prepared by Statera Energy Limited in respect of a proposed battery energy storage system ("BESS") facility at land north of the Culham Science Centre, South Oxfordshire. The purpose of this document is to identify how construction traffic including site personnel movements will be routed to the Culham BESS site and how such traffic will be safely controlled by the Statera Energy and its sub-contractors.
- 1.2 Whilst the document covers some of the detail that would be expected within a Transport Statement or similar, the main focus is the management of construction traffic throughout the construction phase of the BESS. It should therefore be read as a Construction Traffic Management Plan (CTMP) against which any specific conditions can be applied to ensure the safe management of traffic throughout the construction period.
- 1.3 The nature of BESS facilities is such that there are few significant effects in Transport and Access terms during the Scheme's operational phase. During this period, there are anticipated to be only a handful of visits to the site per month by vehicle for maintenance. Therefore, the focus of the CTMP will be on the effects during the temporary construction phase. The effects of the temporary decommissioning phase will be equivalent to, or less than, the construction phase.

## **Development Proposals**

- 1.4 Statera Energy is seeking detailed planning permission for the proposed development of a Battery Energy Storage System (BESS), comprising a 500 megawatt (MW) battery storage facility with associated infrastructure, access and landscaping, with a connection into the Culham Jet Substation.
- 1.5 The Proposed Development is located within the administrative boundary of South Oxfordshire District Council (SODC), north of the Culham Science Centre and near Clifton Hampden. The site covers a total area of 26.8 hectares (ha).
- 1.6 The Site location is shown in Figure 1.





Figure 1 – Site Location Plan





Figure 2 – Site Block Plan

1.7 The Site is located in South Oxfordshire District Council, therefore the Highway Authority is Oxfordshire County Council.

# Site Working Times (TBC)

1.8 It is proposed that construction will be undertaken during the following times:

Day:	Winter working (Oct – Mar):	Summer working:
Monday	07:00 – 18:00	07:00 - 20:00
Tuesday	07:00 – 18:00	07:00 - 20:00
Wednesday	07:00 – 18:00	07:00 - 20:00
Thursday	07:00 – 18:00	07:00 - 20:00
Friday	07:00 – 18:00	07:00 - 20:00
Saturday	07:00 - 13:00	07:00 - 13:00
Sunday	No works	No works
Bank Holidays	No works	No works
Site Security	17:00-07:30 every day	19:00 - 07:30 every day



STATERA

#### **Construction Overview**

- 1.10 The development will be subject to an 18-month construction period as shown on the indicative construction programme attached as Appendix 1.
- 1.11 Earthworks for the internal access tracks and the battery bases is the first construction activity followed by stoning up of the access tracks and the construction of the concrete bases required to house the battery units. In parallel with the concrete works the electrical infrastructure required to connect the individual battery units within the site is installed together with the electrical connections to the off-site National Grid. The batteries themselves are then brought to site, installed, and connected.
- 1.12 Up to approximately 70 construction workers are forecast to be on site each day during the busiest months although the number will vary month to month depending on the work activities. Approximately 40 to 50 construction workers on site each day is considered a more typical number.



# 2. Predicted Construction Vehicle Numbers

#### Heavy Goods Vehicles

- 2.1 The likely number of HGV delivery vehicles per week required to construct the site are shown on the indicative construction program.
- 2.2 Material quantities have been calculated for the stone required for the on-site access tracks and the concrete / steel materials required for the concrete bases. These quantities have been used to identify the likely number of delivery vehicle movements required with this totalling approximately 825 loads by 8-wheel tippers (stone), flatbed rigid delivery lorries (steel reinforcement) and 6m<sub>3</sub> ready mix concrete lorries. It is likely that these materials will be delivered relatively evenly over an approximately 10-month period with typically 20 to 30 loads per week (40 to 60 two-way HGVs) or approximately 4 to 6 loads per day (8 to 12 two-way HGVs).
- 2.3 Statera Energy's experience from other similar sites identifies that development of a BESS facility requires 1 HGV per modified battery container. The 500MW development at Culham will therefore likely require approximately 296 HGV loads (containers on 16.5m articulated lorries) to deliver the battery containers and associated electrical equipment. These deliveries will take place evenly over an approximately 8-week period which equates to approximately 37 loads per week (74 two-way HGVs) or approximately 6 loads per day (12 two-way HGVs).
- 2.4 HGV movements across the programme as a whole are forecast to peak at approximately 35 per week (70 two-way) or approximately 7 per day (two-way).
- 2.5 A small number of Abnormal Indivisible Loads (AILs) will be required to transport the onsite substation units required to transfer the energy to and from the main Culham substation. The routing of these AILs is covered within a separate routing report prepared by the specialist haulage contractor, Wynns.

## Workforce

- 2.6 As previously identified, workforce numbers will generally be approximately 40 to 50 per day and up to 70 at peak times. These workforce numbers are also shown on the indicative construction programme (Appendix 1).
- 2.7 Where the workforce will travel from is currently unknown as it will depend on the appointed contractor and the personnel assigned to the site. However, it is anticipated that many of the non-local workforce will stay at local accommodation and be transported to and from the site by minibus and/or van. This is typical of the construction industry where a groundworks 'gang' (or similar) travel together meaning workforce vehicle movements are minimised together with the impact on the highway network. The number of car trips to and from the site will therefore be limited primarily to those associated with site management staff and visitors.



2.8 A temporary car parking area (including spaces for minibuses and vans) will be provided within the on-site contractor's compound. This will be of a sufficient size to ensure that all workforce, management, and visitor parking demand can be fully accommodated within the site thereby ensuring no parking takes place on the local highway network.



# Typical Daily Profile of Construction Traffic Movements

- 2.9 Where possible, deliveries and collections by HGVs will be restricted to weekdays only and between 09:30 and 16:00 (outside of school term) and between 09:30 and 15:00 (during school term). These hours avoid the traditional highway peak hours and help minimise off-site traffic impact. They also avoid the start and end of the school day.
- 2.10 Based on the above, it is possible to identify a typical daily profile of vehicle arrivals and departures through the site access, as shown below.

Time	Workford	ce Vehicles	Heavy Goods Vehicles			
	(cars, vans	s, minibuses)	(tippers, flat-	beds. artics)		
	Arrive	Depart	Arrive	Depart		
07:00 - 08:00	18	-	-	-		
08:00 - 09:00	-	-	-	-		
09:00 - 10:00	-	-	2	-		
10:00 - 11:00	4	4	3	2		
11:00 - 12:00	-	-	3	3		
12:00 - 13:00	-	-	2	3		
13:00 - 14:00	6	6	2	2		
14:00 - 15:00	-	-	-	2		
15:00 - 16:00	-	-	-	-		
16:00 – 17:00	-	-	-	-		
17:00 – 18:00	-	-	-	-		
18:00 – 19:00	-	18	-	-		

2.11 The above represents the combination of winter working hours, school term delivery hours and the highest predicted number of HGV movements per day 14 (two-way). It is also based on the maximum workforce of 70 (typical vehicle occupancy assumed to be 4) and allows for occasional car and vehicle movements during welfare breaks (to and from local shops or similar). The indicative programme identifies that the maximum workforce and the maximum HGV numbers are unlikely to occur at the same time with the above therefore clearly representing a worst-case scenario. Even so, the hourly traffic flows remain low and do not exceed 16 two-way vehicle movements in any one hour.



# **Operational Phase**

2.12 Once operational the site will be unmanned (a passive installation) with post construction activity limited to occasional visits to undertake security checks and routine maintenance. It is unlikely to involve more than 3 or 4 visits by car or small van over a typical week with vehicle access being from Thame Lane via the retained construction access.

## Decommissioning

- 2.13 With routine maintenance the BESS have an operational life of between 35 and 40 years. Once the batteries reach the end of their life, or earlier if a term is imposed through planning conditions, the site will be decommissioned with all electrical infrastructure removed.
- 2.14 It is envisaged that a similar number of vehicle movements would be required to clear the site with these following the same route detailed in the following section.



# 3. **Proposed HGV Route To and From the Site**

# **Route Description**

- 3.1 The preferred HGV routes to the Culham BESS construction site are shown in red in Figure 3.
- 3.2 It is anticipated that all construction traffic will route from the strategic road network via the M4 or M40 before routing on more local routes to access the site.
- 3.3 All construction vehicles will approach the site via the A415 Abingdon Road and use the eastern junction with Station Road. The A415 is a high standard 7.3m carriage- way with a broadly straight alignment where it passes the Station Road junction. It is subject to the national 60mph speed limit.
- 3.4 Station Road has a carriageway width of approximately 6m with 15m radii kerb lines forming the bellmouth of the junction with Abingdon Road. A straight section of Station Road (approximately 50m) leads to a side road junction where a barrier con- trolled access leads into the Culham No.1 Industrial Estate. This is a secondary access to the Industrial Estate and is not used for day-to-day vehicle access.
- 3.5 Traffic flows on Station Road are low as the road serves only the Industrial Estate,
- 3.6 Culham Railway Station, a Public House and a small number of residential properties. Once beyond the existing control barrier, there is a link track of approximately 6m width that extends straight for approximately 140m before connecting with the existing concrete access roads within the Culham No.1 Industrial Estate.
- 3.7 A significant benefit of the proposed construction vehicle access route is its predominantly straight alignment which minimises the turning requirements of the large delivery vehicles.
- 3.8 Access through the Culham Science Centre and along Thame Lane has also been organized, for the electrical connection of the site via the Culham National Grid substation.
- 3.9 It is considered that the proposed access route between Abingdon Road and the site itself serves to minimise the impact on the existing highway network and the businesses within the adjacent Industrial Estate and Science Centre. It therefore represents an appropriate arrangement for facilitating large vehicle access during construction of the proposed Battery Energy Storage System.
- 3.10 Construction vehicles will depart via the same route.





Figure 3 – The proposed construction route for HGVs



# **Road Condition Survey**

3.11 Statera Energy is willing to accept a planning condition requiring a road condition survey to be undertaken before, during and after construction of the Proposed Development. It is suggested that the full extent and scope of this be discussed and agreed in writing with the Local Planning Authority and Highway Authority prior to undertaking the initial survey. A suggested wording for the condition is given over- leaf.

"The development shall not commence unless or until an initial road condition survey has been submitted and approved in writing by the Local Planning Authority. The extent and scope of the survey shall be first agreed with the Local Planning Authority. The condition of the road shall be monitored and reported to the Local Planning Authority every 6 months throughout the construction period of the development and any defects or damage attributable to the construction activity is to be rectified by the developer at their expense within 3 months of the defect being identified."

3.12 The Site Manager will also regularly monitor the condition of the road surface throughout the construction period and effect any temporary reinstatements or similar that may be required to ensure the safe operation of the local highway network.



# 4. Vehicle Access to the Site

- 4.1 Access to the site will be from the existing private agricultural access off Thame Lane. It is proposed that this existing access be upgraded to facilitate vehicle access during construction of the Proposed Development. It will also be retained post completion of the construction operations to allow for future maintenance access to the BESS site, please refer to the Access Technical Note for further detail.
- 4.2 To manage access to the site, advanced 'Works Access', 'Slow', and 'Large Vehicles Turning' signage will be provided in both directions to warn of the presence of the site access and the potential for increased turning movements. This signage will be designed, implemented, and then maintained throughout the construction works by an accredited traffic management signage sub-contractor. The signage arrangements will be discussed and agreed with the Highway Authority prior to their implementation.
- 4.3 A significant benefit of the proposed construction vehicle access route is its predominantly straight alignment which minimises the turning requirements of the large delivery vehicles. A swept path assessment of the initial southern section of the access route from Abingdon Road forms part of Appendix 2. The construction compound and delivery arrangements will be such that the largest vehicles will be able to turn within the site at the northern end of the access route to facilitate both arrival and departure in a forward gear.
- 4.4 A Banksman will also be provided at the site access location when HGV movements are expected so that HGV access to the site can be appropriately managed and controlled.



# 5. Management of On-Site Areas

## **Controlled Access**

- 5.1 During construction the Proposed Development will be accessed via a Site Security Checkpoint located at the entrance to the construction site. Unrestricted access is not allowed without undertaking a Site-Specific Induction, Assessment and Approval. In the absence of this training and approval, visitors to site will always be escorted by a site member in possession of this training and authorization.
- 5.2 It is proposed the BESS Site will be a Safe 6 site and all personnel working or carrying out deliveries to site will require as a minimum Safety Helmet (Hard Hat), Hi-Vis Tabard, Coveralls, Gloves, Light Eye Protection, Safety Boots. For temporary visitors spare sets of Light Eye Protection and Hard Hats will be provided but it is the expectation that all deliverers/collection persons will have all the equipment with them. It is a requirement that all site personnel and visitors sign in and out of the site on all occasions.

# **Construction Compound**

- 5.3 A temporary compound area will be established next to the site access with this being of a sufficient size to accommodate welfare facilities for the workforce, parking for workforce vehicles, secure storage of materials and the unloading requirements of the delivery vehicles. The area will also be of a size that will allow the largest delivery vehicles to turn such that they can both enter and depart the site in a forward gear. In this way there will be no queuing, parking, unloading or materials storage on the public highway.
- 5.4 The Site Manager or their designated deputy will be responsible for supervising, controlling and monitoring vehicle movements within the site and ensuring that there are suitable arrangements for the safe delivery and collection of vehicle loads. All plant, delivery/collection vehicles and cranes will be supervised by a Banksman when reversing.

# **Site Access Tracks**

5.5 5m to 6m wide tracks will be provided within the site to enable vehicle access to the various areas of BESS installation. These will be of a sufficient standard for the construction activities and will be retained post construction to allow occasional access for maintenance purposes during the operational stage. Topsoil will be removed before 500mm of 75mm crushed stone is laid and compacted on an appropriate geo- textile membrane. Figure 4 shows a similar access track which has proven to be appropriate on similar sites elsewhere.





Figure 4 – Example Access track

5.6 Height Restriction Barriers (Goal Posts) will be installed where there is a potential for accidental contact with overhead infrastructure in line with National Grid GS6 requirements. Similarly restricted access areas will be identified and barriered.

## **Unloading of Larger Elements**

- 5.7 The transformer equipment will be delivered directly to the required location within the site and unloaded by crane. Details of crane can be found in Appendix 3.
- 5.8 Various elements will be delivered directly to the required location within the site and unloaded by mobile crane. The crane requires a swivel radius of at least 6m as shown in Figure 5. To facilitate unloading a clear distance of at least 2m will be maintained to neighbouring obstacles such as fences and trees with any overhead power lines also being taken into consideration.



Figure 5: Crane Handling Requirements



5.9 The transformers required for the main substation have a weight of 112t and will be delivered as AILs. These will require a much larger mobile crane, similar to that shown in Appendix 3, to unload the delivery vehicles and correctly position the transformers. Safe working space will be advised by the specialist crane provider / operator and provided as required.

## **Vehicle Wheel Washing Facilities**

- 5.10 BESS sites require ground works to create foundations for the battery units and associated equipment, the transformers, and substations. These excavations will generate spoil that could dirty the wheels of construction related vehicles. For the most part delivery and workforce vehicles that enter and depart the site will not be required to travel on unmade ground as all such movements will be contained within the compound area or will follow the site access tracks, both of which will be of a 'stoned' construction. This will serve to minimise the collection of mud on vehicle wheels. Formal wheel washing facilities are therefore not considered necessary.
- 5.11 Notwithstanding, all HGVs leaving the site will be inspected by the Banksman prior to departure to ensure that their wheels are sufficiently clean to access the public highway. Wheel washing facilities in the form of a jet washer and water supply will be provided adjacent the site access and used should the need arise.
- 5.12 The Site Manager will also monitor the cleanliness of the local highway network on a regular basis and hire in a mobile road sweeper should this be found to be necessary.

## Site Materials Migrating on to the Public Highway

- 5.13 BESS sites do not generate significant volumes of waste material which minimises the risk of materials migrating on to the public highway. The site will be controlled by a Site Waste Management Plan (SWMP)which will be submitted to the Local Planning Authority prior to construction. This will assist in controlling any residual risks.
- 5.14 The Banksman stationed at the site access will also be tasked with ensuring that all vehicle loads are appropriately sheeted and that the surfacing of the access is kept clear of loose stones and similar. Appropriate equipment will be provided to assist.



# 6. Public Rights of Way

6.1 There are three Public Rights of Way (PRoW) that abut the site and that could also be impacted by vehicle movements associated with the BESS site. These are shown in Figure 6 below.



Figure 6: Public Rights of Way

- 6.2 It should be noted that the Proposed Development delivers a new permissive path that runs through the allocated BNG area in a loop and joins with the Restricted Byway 183/4.
- 6.3 During the construction period, warning signage for pedestrians will be provided on all three PRoW approaches to this crossing point with this signage being as shown in Figure 7, or similar to be agreed with the Highway Authority.



STATERA

Figure 7: Pedestrian Warning Signage

- 6.4 'No Entry to Construction Traffic' signage will also be provided on the PRoWs to avoid their accidental use by construction vehicles.
- 6.5 Gates will be provided where the site access tracks pass through the fenced areas. The default position for these gates will be 'closed' with them only being opened when a vehicle needs to pass through before being closed again directly after. In this way vehicle speeds will be very low with drivers and users of the PRoWs having time and space to avoid each other while crossing. At times of heavy vehicle usage, the gates will be manned by a Banksman who will hold back vehicles on the access tracks and/or advise pedestrians to wait while vehicles are maneuvering.
- 6.6 Surfacing of the PRoWs at the crossing point will be as per the standard Site Access Tracks discussed previously and as shown in Figure 7. Levels will be maintained flush with the existing ground levels.

# STATERA

# 7. Management of Construction Traffic

# **Cumulative Impact**

- 7.1 Proposals for a Fusion Demonstration Plant (P22/S1410/FUL) on land to the north east corner of the Culham Science Centre is currently going through the planning system. This proposal is likely to follow the same general construction access routes and could therefore result in cumulative impacts if constructed at the same time as the Proposed Development scheme.
- 7.2 It has previously been identified that the peak period for HGV movements to the site is likely to be over the first 6 months of the 18 month construction period. The likelihood of similar works being undertaken on the other sites over this same relatively short time period is considered low, however it cannot be discounted completely. It is therefore proposed that Statera Energy initially engage in dialogue with the other Developers to identify their build programs and, if shown to overlap, that a joint 'Road Booking System' be implemented.
- 7.3 The Booking System will allow the respective Site Managers to discuss and coordinate their HGV movements in advance with the aim of ensuring that total movements on a particular day or across a particular week do not have a significant adverse impact on the shared site access route. It is envisaged that each developer would effectively 'book' particular days for their construction traffic movements with the other developers agreeing to adjust their HGV movements to suit. It would clearly be in all parties' best interest to implement and comply fully with such a system.

# **Traffic Management Principle**

- 7.4 It is important that the interaction between site related traffic and general traffic on the local highway network is managed to maximise construction efficiency and safety while minimising risk, inconvenience, and nuisance to the public. This will be achieved through careful management, programming and coordination of all construction works and associated traffic accessing the site.
- 7.5 To minimise the impact of construction related traffic on Abingdon Road and the wider construction access route, the following traffic management principles will be observed (over and above those discussed previously).
- 7.6 The access route to and from the site (as identified previously) will be discussed further with, and approved by, the Highway Authority prior to commencement of construction. This will include full details of the location and message given by temporary advanced warning signage.
  - The Parish Council's along the construction access route will be contacted once the construction period is known to advise them of increased HGV traffic on the local roads and the relevant dates. Highway Notices will also be erected in the various villages along the route to provide similar information.
  - Contact details of the Site Manager will be provided to the Parish Council's such that they can raise any traffic concerns that may arise during the construction period.

• The Site Manager will be responsible for coordinating delivery vehicle movements to and from the site and assigning these a specific time for arrival. In this way HGV movements will be spread evenly throughout the daily delivery period.

STATERA

- Delivery drivers will be required to contact the Site Manager (by mobile telephone or similar) whilst on route to confirm their time of arrival and to enable the Banksman to prepare for that arrival. Such contact will also allow the Banksman to hold back any HGV about to depart the site until such time as the inbound HGV has arrived thereby minimising the risk of two opposing HGVs meeting while using the two-way section of the access route through Berden village.
- All materials delivered to the site will be consolidated as far as possible to minimise the overall number of HGV movements required.
- Where possible, drivers will be encouraged to turn off vehicle engines when parked, waiting to unload, or when vehicles are not in use. This will reduce the noise impact on the surrounding area and will result in lower vehicle emissions.
- All large delivery vehicles arriving and departing the site will be appropriately sheeted, netted, or strapped to prevent any loss of materials during transit.
- Contractors and sub-contractors will be given an induction by the Site Manager through which the routing requirements and traffic management measures contained within this CTMP will be fully communicated.
- The CTMP will be incorporated as part of the overall Health and Safety policy for the site. Any breach of the principles contained within the document by haulage contractors, or their drivers will therefore be subject to a warning with any subsequent breach resulting in a ban from the site.

Appendix 1 – Construction Program

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL HGVs
Compound, welfare cabins, plant deliveries	20	1																	20
Earthworks for access tracks and battery bases	35	35	35	35	35				-							1			175
Stone for access tracks	-	50	50	50	50	50													250
Concrete and steelwork for battery bases				50	50	50	50	50	50	50	50	1	1						400
Import and installation of battery containers												59	59	59	59	30	30		296
Electrical infrastructure and connections							60	60	60	60	60	60	60						420
Miscellaneous	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	360
Removal of compound and welfare cabins																		20	20
TOTAL HGVs per month	75	105	105	155	155	120	130	130	130	130	130	139	139	79	79	50	50	40	1941
TOTAL HGVs per week (average)	18.8	26.3	26.3	38.8	38.8	30.0	32.5	32.5	32.5	32.5	32.5	35	35	20	42.0	42.0	42.0	10.0	
TOTAL HGVs per day (average)	3.8	5.3	5.3	7.8	7.8	6.0	6.5	6.5	6.5	6.5	6.5	7	7	4	8.4	8.4	8.4	2.0	
TOTAL WORKFORCE per day	20	30	30	70	70	60	55	55	55	55	55	25	25	10	10	10	10	10	



Appendix 2 – Swept Path Analysis of Construction Access Route





Appendix 3 – Typical Large Crane Details

# Mobilkran •Mobile Crane

Grue mobile • Autogru Grua movil • Mo6HnbHblH КраН

Г,

**CIO** 0 0

1ft

Technische Dalen • Technical **Data** Caracteristiques techniques • **Dali** tecnici Datos tecnicos • TexNH..ecK11e AaNNb1e



LTM 1500-8.1



Technische Dalen • Technical Data Caracteristiques technique • Dali tecnici Datos tecnicos • TexHH11ecKHe AGHHbte	<b>50</b> ml	<b>84</b> ml
MaBe • Dimensions • Encombrement		
Dimensioni • Dimensiones • ra6apHTbl KpaHa		
Transportplan • Transportation plan • Plan de transport Piano di trasporto • Esquema de transporte • TpaHcnopTHaR cxeMa	٨	٨
Auslegersysteme • Boom/jib combinations • Configurations de fleche Sistema braccio • Sistemas de pluma • CTpen0Bble CHCTeMbl	~	~
Gewichte, Geschwindigkeiten • Weights, Working speeds • Poids, Vitesses Pesi, Velocita • Pesos, Velocidades • Harpy3KH, CKopocrn		
т	В	В
TY3	С	С
TF	D	D
TVF	Е	
TY3F	F	F
TY3EF	G	G
TVY3F	н	
TN		
TVN	J	
TY3N	К	К
TVY3N	L	
TY3SN	Μ	М
TNZF	Ν	N
TY3NZF	0	0
TY3ENZF	р	р
Ausstattung • Equipment • Equipement Equipaggiamento • Equipamiento • <b>06opy,qoeaHHe</b>		
Symbolerklarung • Description of symbols • Explication des symboles Legenda simboli • Descripci6n de los sfmbolos • <b>06bRCHeHHe CHMBonoe</b>	Q	Q
Anmerkungen • Remarks • Remarques Note • Observaciones • npHMe4aHH		

MaBe Dimensions Encombrement • Dimension! Dimensiones • ra6apMTbl KpaMa

Α







Bereifung 385/95 R 25 (14.00 R 25) \* Tyres 385/95 R 25 (14.00 R 25) \* Pneumatiques 385/95 R 25 (14.00 R 25) \* Pneumatici: 385/95 R 25 (14.00 R 25)

MaBe • Dimensions • Encombrement • Dimensioni • Dimensiones • Pa3Mepb1 mm								
	В	С						
385/95 R 25 (14.00 R 25)	3000	2612						
Neumatiges/95/R5252(164.00 KR252)5)WHHD	385/95 R 25 (14.00 R 25) 3000	2552						
525/80 R 25 (20.5 R 25)	3230	2702						







Bereifung 385/95 R 25 (14.00 R 25) • Tyres 385/95 R 25 (14.00 R 25) • Pneumatiques 385/95 R 25 (14.00 R 25) • Pneumatici: 385/95 R 25 (14.00 R 25) • Neumaticos: 385/95 R 25 (14.00 R 25) • W"Hbl: 385/95 R 25 (14.00 R 25)

	Maße · Dimensions · Encombrement · Dimensioni · Dimensiones · Pa3Mepb1 mm							
	В	С						
385/95 R 25 (14.00 R 25)	3000	2612						
445/95 R 25 (16.00 R 25)	3000	2552						
525/80 R 25 (20.5 R 25)	3230	2702						

LTM 1500-8.1



S2775



Grundballast · Basic counterweight · Contrep oids de base Zavorra base · Contrapeso base · OcH0BH0 npornsosec	135 t
Zusatzballast • Additional counterweight • Contrepoids additionnel Zavorra addizionale • Contrapeso adicional • ,QononH TeflbHbl npornsosec	<b>30</b> t
Gesamt • Total • Total • Totale • Contrapeso total • Bcero	165 t

Option  $\cdot$  optional  $\cdot$  en option  $\cdot$  optional  $\cdot$  opcional  $\cdot$  no заказу



S2777



Gewichte Telesektionen
ink
Ablagekonsolen B: 21,5 t • Weights telescopic sections
-<5 i ncluding supporting stands B: 21,5 t</td>

Poids des elements telescopic ues
et des consoles de support B: 21,5 • pesi sezioni telescipiche (a)
-<6 i ncluding supporting stands B: 21,5 t</td>

Pesos de los tramos telescôpicos
ncl. las consolas de transports B: 21,5 • beca BblABS>KHblXc · (\* black b







A=Teil A / Part A / Partie A / Parte A / Pieza A / Часть А



S2774

Gewichte Weights Polds • Pesl Pesos • Harpy3KM										
Achse • Axl	e									Gesamtgewicht • Total weight t
Essieu • Ass Eje • MOCT	se bl		2	3	4	5	6	7	8	Poids total • Peso totale t Peso total • 061.1.11-1fi sec, т
• mil 50 m Teleskopausleger /	with 50 m long tel	12 scopic boo	12 /avec flech	12 telescopiqu	12 de 50 m /	12 con braccio t	12 lescopico d	12 50 m / con	12 50 m de plu	96* a telesc6pica/renecKOnH4€CKaA crpena 50 м



ا ا Traglast • Load • Forces de levage t Portata • Capacidad de carga t rpysono.obeMHOCTb, T	Rollen • No. of sheaves Poulies • Pulegge Poleas • KaHaTHblX 6noKOB	Strange • No. of lines Brins • Tratti portanti Reenvfos • 3anacosKa	Gewicht ∙ Weight kg Poids∙ Peso kg Peso ∙ Co6cr. sec, Kr
274,1	13	27	6100
247,7	11	23	3700
171,1	7	15	2700
84,7	3	7	2600
37,4	1	3	1400
12,5		1	700

# Geschwindigkeiten Working speeds

Vitesses • Velocitci Velocidades • CKopoCTM



Antriebe • Drive		stufenlos • infinitely variable	Seil 0 / Seilliinge • Rope diameter/ length	Max. Seilzug • Max. single linepull				
Mecanismes • Meccanismi		en continu • continue	Diametre / Longueur du cable • Diametro / lunghezzafune	Effort au brin maxi. • Mass. tiro diretto fune				
Accionamiento • npHBOAbl	, i	egulable sin escalonamiento • 6eccryneH4aTO	Dia.metro/ longitud cable·,[\HaMerp / AnHHa rpoca	Tiro max. en cable • MaKc. TRrosoe ycHne				
	O - 130	m/min fi.ir einfachen Strang • single line m/min au brin simple • per tiro diretto • a tiro directo MIMHH npH OAHOKpaTHO 3anaCOBKe	25 mm /620 m	126 kN				
	O - 145	m/min fi.ir einfachen Strang • single line m/min au brin simple • per tiro diretto • a tiro directo MIMHH npH OAHOKpaTHO 3anaCOBKe	25 mm /620 m	126 kN				
	O - 130	m/min fi.ir einfachen Strang • single line m/min au brin simple • per tiro diretto • a tiro directo MIMHH npH OAHOKpaTHO 3anaCOBKe	25 mm <i>I</i> 1050 m	126 kN				
	0-1	min-1 06/MHH						
4	ca. 70 s bis 83° Auslegerstellung • approx. 70 seconds to reach 83° boom angle env. 70 s jusqu'a 83° • circa 70 secondi fino ad un'angolazione del braccio di 83° aprox. 70 segundos hasta 83° de inclinaci6n de pluma • OK. 70 ceK.AO BblcrasneHHR crpenbl Ha 83°							
11	ca. 330 s/750 s fiir Auslegerliinge 16,1 m -50 m/16,1 m -84 m • approx. 330/750 seconds for boom extension from 16,1 m - 50 m/16,1 m -84 m env. 330 s/750 s pour passer de 16,1 m - 50 m/16,1 m - 84 m • circa 330/750 secondi per passare dalla lunghezza del braccio di 16,1 m - 50 m/16,1 m -84 m aprox. 330/750 segundos para telescopar la pluma de 16,1 m - 50 m/16,1 m-84 m • OK. 330/750 ceK. AO BblcrasneHHA or 16,1 MAO 50 Mi 16,1 MAO 84 M							

aprox. 330/750 segundos para telescopar la pluma de 16,1m - 50 m/16,1m-84 m • OK. 330/750 ceK. AO BblcrasneHHA or 16,1 MAO 50 Mi 16,1 MAO 84 M

Α