



HOBAS[®]

Technical Advice Sheet

Handling, Unloading, Storage, and Inspection

General:

Care must be taken when unloading and handling HOBAS Pipes. Severe impact with the ground, forklift tips, or other objects can cause damage to the pipe.

Safety:

Use extreme caution while handling pipes to avoid dropping or rolling on an unsuspecting person.

Equipment and Materials:

Forklift
Crane
Front End Loader

Cherry Picker
Nylon Strap
Chock

Note: Do not use chains or wire cables to handle or move HOBAS Pipes

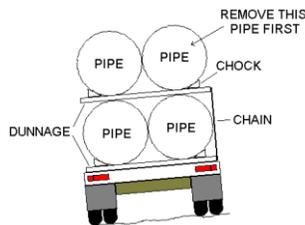
If in doubt, seek advice from:
HOBAS PIPE USA
800-856-7473

Handling

1. Severe impact with the ground or other objects can damage the pipe.
2. Never use chains or wire cables to handle HOBAS pipes. Use a fabric strap or carefully use a forklift.
3. Avoid letting the weight of the pipe rest on the coupling or bell end.
4. Avoid setting pipes on rocks or very uneven ground. A point load with a hard object can damage the pipe.
5. Be aware of the location of pipe ends while moving. An end or coupling can be easily damaged by an impact.

Unloading

1. After the shipping straps have been removed, use a cherry picker or crane with a nylon strap or a fork lift to remove the top pipes one at a time.
2. Take care that fork tips do not strike other pipes.
3. Pipe sections can be lifted with one support point (using a strap), although two support points may increase control.
4. A leaning or off-center load is extremely dangerous. When unloading, tie the ends of the pipe dunnage to the trailer to prevent them from flipping over. Remove the uphill pipe first. Be careful that the second pipe does not roll.



5. It is up to the installer to determine the best and safest method to unload special pieces (fittings, manholes, etc.). Use special caution to avoid damaging joint ends. Avoid picking up the special pieces by branches. Use the main pipe.

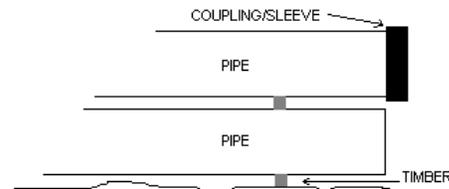
Storage

Short Term –

If possible, lay pipe on flat level ground. Avoid setting pipe on rocks or other objects which would cause a point load.

Long Term –

1. For long term storage, it is best to store HOBAS pipe in the same arrangement as it arrived on the truck. To avoid damage or deformation to the bell ends, do not allow the couplings/sleeves to rest against each other



2. Always use timbers and chocks between layers when stacking pipe.
3. It is advisable to re-inspect pipe after long term storage to assure no damage has occurred during storage or handling. If storing pipe for a prolonged period of time (over six months) contact HOBAS for further considerations.
4. Use the following chart to determine recommended stacking height of your pipe.

Diameter	# of pipes in stack
18-20	4
24-30	3
36-60	2
>60	1

Along Ditchline –

1. String the pipe as near as possible to the ditch to avoid excess handling.
2. String the pipe on the opposite side of the ditch from the excavated material.
3. Place pipe so that it will be protected from traffic and equipment during the construction process.

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Pipes with Grout Fittings

1. Extra care should be taken in handling/unloading and storage with pipes where grout fittings are installed. HOBAS grout fittings are not typically flush to the pipe OD and protrude a small amount externally. Care should be taken that this raised area does not get contacted during handling/storage or installation.
2. Extreme care should be taken when rolling pipes with installed grout fitting over flat ground to avoid point loading the grout fitting location as it rolls under. Utilization of timber runners and shipping dunnage can assist in this.
3. Grout fittings should never be used to lift pipes. Threads can easily be damaged and they are not designed to carry pipe weight. Significant damage and injury can occur if the pipe is lifted from the grout fitting.

Inspection Procedures

1. Make an overall inspection of the loaded truck. If the load is intact, ordinary inspection while unloading should be sufficient to see if the pipe has arrived undamaged.
2. If the load has shifted during transit, each pipe needs to be carefully inspected for damage. Internal inspection is necessary for any pipes that have exterior scrapes, gouges, or impact marks.
3. Check total quantities against the bill of lading.
4. Any damaged or missing items should be noted on the bill of lading. Have the carrier's representative sign your copy of the receipt. Make a prompt claim according to the carrier's instructions.
5. Do not dispose of any damaged material. The carrier will notify you of the procedure to follow.
6. Check the factory markings on the pipe to assure that you have the correct pipe. The pipes are marked as follows:

DIA XX PN XXX SN XX
CODE XXXXXXXXX

Where:
DIA = nominal diameter (in)
PN = pressure rating (psi)
(PN is left off gravity pipes)
SN = stiffness class (psi)
CODE = production code
7. If damage is found on a pipe, contact a HOBAS Field Technician to discuss the possibility of a repair.