WAC 296-155-56220 Scrap and material handling grapples. (1)Grapples must be constructed in accordance with ASME B30.20-2010, Below-the-Hook Lifting Devices.

(2) Identification. All grapples must be marked with the following information:

(a) Manufacturer's name and address;

(b) Serial number or unit identification;

(c) Grapple weight;

(d) Rated voltage, if applicable;

(e) Operating hydraulic pressure(s), if applicable;

(f) Rated capacity;

(q) If repaired or modified, name and address of repairer or modifier and (a) through (f) of this subsection if changed.

(3) Grapple installation.

(a) You must install grapples according to manufacturer's instructions.

(b) The hydraulic flows and pressures must be the same as shown in the manufacturer's instructions.

(4) Inspections.

(a) A qualified person must inspect all new, altered, repaired and modified grapples according to Table 38. A qualified person can limit the inspection of altered, repaired or modified grapples to the parts affected.

(b) Grapples must be visually inspected each shift they are used, by the operator or another competent person, according to Table 38.

(c) A qualified person must determine whether signs of damage indicate a hazard.

(d) You must correct hazardous conditions before continuing use.

Table 38 Grapple Frequent Inspection

Inspect:	How often:
Structural members for:	• Normal service - Monthly.
• Deformation.	 Heavy service - Weekly to monthly.
Cracks.	 Severe service - Daily to weekly.
• Excessive wear on any part of the grapple.	• Special or infrequent service - As recommended by a qualified person before and after each occurrence.
Pins and bushings.	Before using, when
Hydraulic lines.	a grapple has been idle for more than
Hydraulic cylinders.	one month.
Loose bolts.	
Electrical conductors that are visible without disassembly.	

• Normal service means service that involves operation with various weights within the rated load limit, averaging less than 65% of rated load Note: limits.

Heavy service means service that involves operation within the rated load limit, that exceeds the limits of normal service.
Severe service means service that involves normal or heavy service with abnormal operating conditions.

(e) A qualified person must perform a periodic inspection of grapples according to Table 39. Include the items from Table 38 of this section.

(f) You must keep data inspection reports on critical items such as structural members, fasteners, lifting parts, hydraulic hoses, fittings and tubing, hydraulic motors and hydraulic cylinders.

(g) You must correct hazardous conditions before continuing use.

Table 39 Grapple Periodic Inspection

Inspect:	How often:
•	
Members, fasteners, and lifting parts for:	 Normal service for equipment in place - Yearly.
• Deformation.	Heavy service, unless external
• Wear.	conditions indicate that disassembly
Corrosion.	should be done to permit detailed inspection - Quarterly.
Hydraulic hose, fittings, and tubing for:	• Severe service - Monthly.
Evidence of leakage	Special or
at the surface of the hose or its junction	infrequent service - As recommended
with metal couplings.	by a qualified
Blistering or abnormal	person before the first occurrence and
deformation of the outer covering of the	as directed by the
hose.	qualified person for
	any subsequent occurrences.
Leakage at threaded	
or clamped joints that	
cannot be eliminated by normal tightening	
or recommended	
procedures.	
 Excessive abrasion or scrubbing on the outer 	
surface of hoses, rigid	
tubes, or fittings.	
Hydraulic motors for:	
• Loose bolts or fasteners.	
• Leaks at joints between sections.	
• Shaft seal leaks.	
• Unusual noises or vibration.	
• Loss of operating speed.	
• Excessive heating of the fluid.	
• Loss of pressure.	
Hydraulic cylinders for:	

Inspect:	How often:
• Drifting caused by fluid leaking across the piston seals.	
Rod seal leakage.	
• Leaks at welded joints.	
• Scored, nicked, or dented cylinder rods.	
• Dented case (barrel).	
• Loose or deformed rod eyes or connecting joints.	
All electrical components, including meters, indicators and alarms for:	
Proper operation.	
Condition.	

(5) **Operational tests**.

(a) All new, altered, repaired or modified grapples must be tested either by or under the direction of a qualified person before use. The qualified person can limit the testing of altered, repaired or modified grapples to the parts affected.

(b) You must test all warning devices, including:

(i) Indicator lights;

(ii) Gauges;

(iii) Horns;

(iv) Bells;

(v) Pointers;

(vi) Other warning devices.

(c) You must keep dated reports of all operational tests on file.

(6) **Repair**.

(a) You must repair grapples as follows:

(i) Have adjustments and testing done only by or under the direction of a qualified person;

(ii) Use replacement parts that are at least equal to the original manufacturer's specifications;

(iii) Inspect the grapple according to subsection (4) of this section, before returning to service;

(b) You must take the following precautions before repairs on a grapple are started:

(i) Disconnect, lock out and tag all sources of power "Out of Service";

(ii) Tag any grapple removed from service for repair "Out of Service."

(7) Grapples must be operated only by qualified personnel.

(8) Operators must do the following:

(a) Test all controls before use during a shift;

(b) Check all meters and indicators for proper operation before making a lift;

(c) Consult a competent person before handling the load whenever there is any doubt as to safety;

(d) Respond only to instructions from competent persons, except for stop orders. An operator must obey a stop order at all times, no matter who gives it; (e) Do not load grapples in excess of the rated load or with any load that they are not specifically designed for;

(f) Apply the grapple to the load according to the instruction manual;

(g) Bring the grapple over the load in a way that minimizes swinging;

(h) Keep the load or grapple from contact with any obstruction;(i) Set down any attached load and store the grapple before leav-

ing it;
 (j) Don't let anyone ride on loads or the grapple;

(k) Check that all people stay clear of the load.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 16-09-085, § 296-155-56220, filed 4/19/16, effective 5/20/16. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.440, 49.17.060, and 29 C.F.R. 1926, Subpart CC. WSR 12-01-086, § 296-155-56220, filed 12/20/11, effective 2/1/12.]