

Demonstrate Selecting the Correct Fasteners and Locking Application for Maintenance and Repair of Heavy Equipment

Skill Number CO-OP15GN107

Full Name: M. Arkan Acha i.l.

No ID: _____

Validation Date: 11 Desember 2015

School: MUKTI 1 Jember

PERFORMANCE TASK:

Given several fasteners and the necessary tools, as listed:

- Castlalled nut
- Circlips
- Clevis Pin
- Flat Washer
- Spring Washer
- Star Washers
- Self-tapping screw
- Stud
- Wing nut
- Woodruff key
- Lockwire
- Bolt
- Nut
- Thread Lubricant and other Adhesives

The student must identify and explain their function. Student will be required to answer questions on their findings. The student will also be required to complete relevant workplace documentation and is to always observe the correct safety procedures.

Students are required to fill out this form, in the appropriate place, indicating that an inspection of components has occurred and their decision, after inspection is recorded

The student must be able to perform the following task:

- Demonstrate identify and explain the function of provided fasteners and necessary tools.
- Perform communication & etiquette manner

Safety and Contamination Control must be always applied to this process. Literature and measuring tools will be made available but will not be provided directly to the student.

Prerequisite	Yes	No	N/A	Hints
The student must complete the knowledge assessment. Minimum passing grade 80%.	✓			Score fastener course or subject.

Tasks	Completed			Observation /
	Yes	No	N/A	
Preparation				
Prepare related literature	✓			Observe if the cand preparing Manufact literature related to
Prepare required equipment	✓			
Prepare related tools	✓			Observe if the cand preparing related to Thread Identification
Prepare Safety & Contamination Control equipment	✓			Observe if the cand preparing related S. Equipment (e.g. : PP Towel, Plastic Wrap

Tasks	Completed			Observation /
	Yes	No	N/A	
Perform etiquette/manner when starting the job				
Meet the customer / assessor	✓			
Perform etiquette/manner when opening the interaction.	✓			• Perform smile & g • Introduce Student
Explain the purpose of Student's activity.	✓			
Ask permission to perform the job.	✓			

Identification	Tasks	Check			Observation / Hints
		Yes	No	N/A	
1. Accessing Information		✓			Observe if the candidate is accessing information relating task from manufacturer's literature
2. Castellated Nut		✓			Identify Name, Application and Part Number
3. Circlip		✓			Identify Name, Application and Part Number
4. Clevis Pin				✓	Identify Name, Application and Part Number
5. Flat washer		✓			Identify Name, Application and Part Number
6. Spring washer		✓			Identify Name, Application and Part Number
7. Seal Washer		✓			Identify Name, Application and Part Number
8. Self-tapping screw		✓			Identify Name, Application and Part Number
9. Stud		✓			Identify Name, Application and Part Number
10. Wing nut		✓			Identify Name, Application and Part Number
11. Woodruff key				✓	Identify Name, Application and Part Number
12. Lockwire		✓			Identify Name, Application and Part Number
13. Thread Lubricant & other Adhesives		✓			Explain the function, when and where it used.

Tasks	Complete			Observation /
	Yes	No	N/A	
Thread Identification				
UNC	✓			Determine thread si
UNF	✓			Determine thread si
Whitworth	✓			Determine thread si
Metric	✓			Determine thread si
AF	✓			Determine thread si
BSW	✓			Determine thread si

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Perform close the job by ensuring all systems or conditions is in the standard condition				
Ensure all systems or conditions are in standard condition.	✓			<ul style="list-style-type: none"> Find the improper condition. Communicate the finding to the customer/assessor.

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Reporting				
All relevant documentation completed correctly and approved by customer (if required).	✓			<ul style="list-style-type: none"> Completing the Task List Completing Measurement For Check Sheet, if required Create Service Report (SIMS) required Create SPR, if required Documenting the failed or dat parts, if required Provide Technical Analysis Report/failure Analysis Repo required.

Tasks	Completed		Observation / Hints
	Yes	No	
Safety			
Using PPE related to the job	✓		
Follows relevant Workplace Safety Guidelines (LOTO, Safety Equipment)	✓		<ul style="list-style-type: none"> Comply with safety regulation that applied on the workplace
State and follow Safety Precautions	✓		<ul style="list-style-type: none"> Create Job Safety Analysis Student must follow safety procedure refer to service manual or SIS related to job
Service man completes job without accident due to incorrect procedure using hand tools.	✓		<ul style="list-style-type: none"> Correct working position Correct hand tool related to the job
Tasks completed without damage equipment and tools	✓		

Tasks	Completed		Observation / Hints
	Yes	No	
Contamination Control			
Environmental Practices & Housekeeping	✓		<ol style="list-style-type: none"> Waste is minimized, waste material, including sludge, solids and other wastes are sorted and stored in bins for recycling or disposal Packaging of goods received is sorted and reused or disposed of by recycling Materials that can be reused are cleaned and stored Waste and scrap is removed following workplace procedures All fluids are disposed of in accordance with enterprise policies and procedures

Tasks	Completed		Observation / Hints
	Yes	No	
Perform etiquetamanner after completing the job	✓		<ul style="list-style-type: none"> Perform smile & greetings. Ask permission to leave or end the interaction.

General Comments
Praktikan CC saat proses ke de panjng.

RESULT: **COMPETENT** **NOT YET COMPETENT** (please

Student: M. Arkan Arka I.U. 11/12/2015 Signature: _____

Assessor: Chiswan TB 11/12/2015 Signature: _____

Supervisor: _____ Date: _____ Signature: _____

Data Recorded: _____ Date: _____ Signature: _____



Demonstrate Selecting the Correct Fasteners and Locking Application for Maintenance and Repair of Heavy Equipment

Skill Number CO-OP15GN107

Full Name: M. Atkan Atkaly. No ID: _____
 Validation Date: 11 December 2015 School: SNKN / Angoran

PERFORMANCE TASK:

Given several fasteners and the necessary tools, as listed:

- Castalated nut
- Circlips
- Clevis Pin
- Flat Washer
- Spring Washer
- Star Washers
- Self-Lapping screw
- Stud
- Wing nut
- Woodruff key
- Lockwire
- Bolt
- Nut
- Thread Lubricant and other Adhesives

The student must identify and explain their function. Student will be required to answer questions on their findings. The student will also be required to complete relevant workplace documentation and is to always observe the correct safety procedures.

Students are required to fill out this form, in the appropriate place, indicating that an inspection of components has occurred and their decision, after inspection is recorded

The student must be able to perform the following task:

- Demonstrate identify and explain the function of provided fasteners and necessary tools.
- Perform communication & etiquette manner

Safety and Contamination Control must be always applied to this process. Literature and measuring tools will be made available but will not be provided directly to the student.

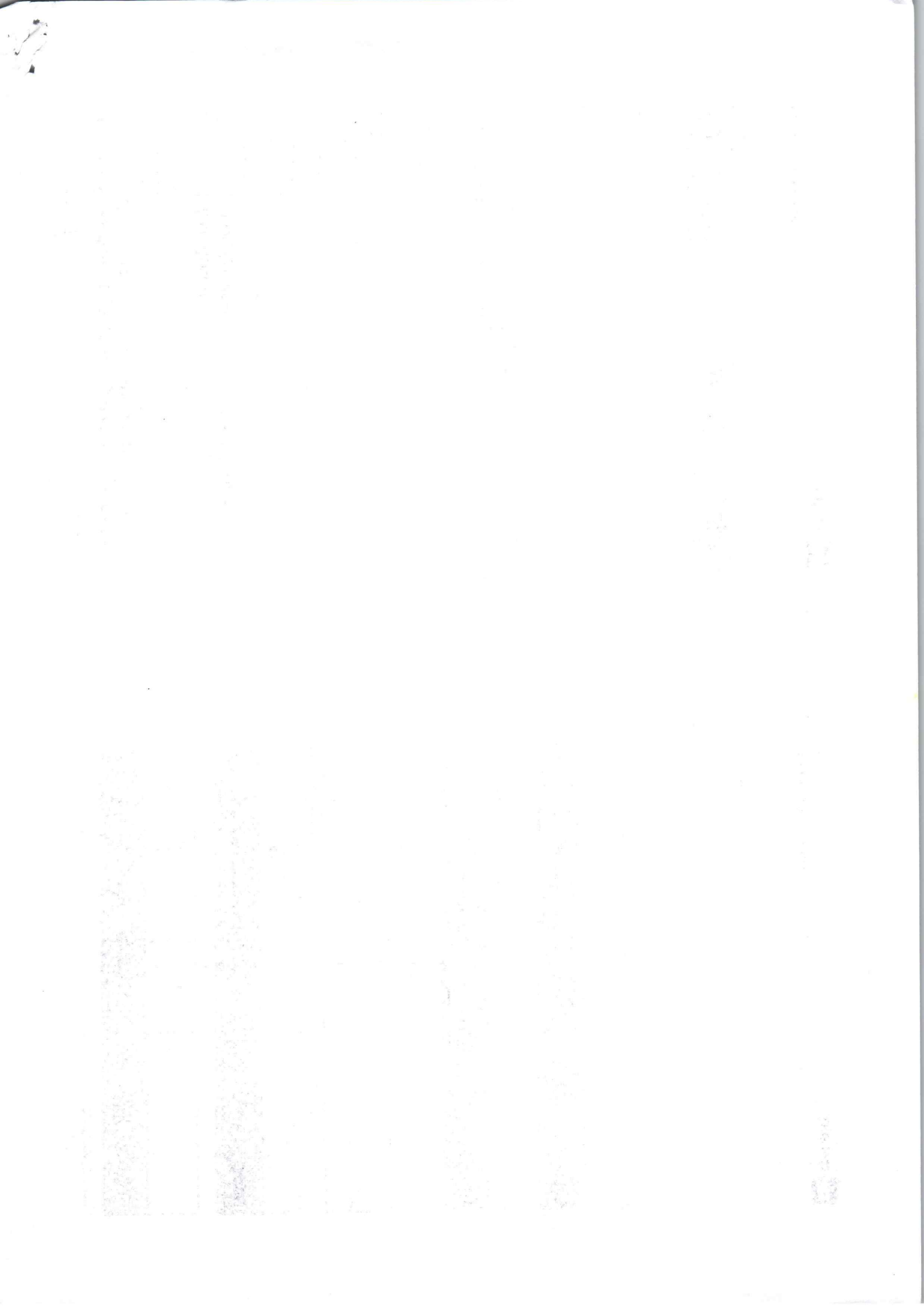
Prerequisite	Yes	No	N/A	Hints
The student must complete the knowledge assessment Minimum passing grade 80%.	✓			



Tasks	Completed			Observation/Hints
	Yes	No	N/A	
Preparation				
Prepare related literature	✓			
Prepare required equipment	✓			
Prepare related tools	✓			
Prepare Safety & Contamination Control equipment	✓			

Tasks	Completed			Observation/Hints
	Yes	No	N/A	
Perform etiquette/manner when starting the job	✓			
Meet the customer / assessor	✓			
Perform etiquette/manner when opening the interaction.	✓			
Explain the purpose of Student's activity.	✓			
Ask permission to perform the job.	✓			





Tasks	Check			Observation / Hints
	Yes	No	N/A	
1. Accessing Information	✓			
2. Cast/related Nut				
3. Circlip	✓			
4. Clevis Pin				
5. Flat washer			✓	
6. Spring washer	✓			
7. Star washer	✓			
8. Self-lapping screw	✓			
9. Stud	✓			
10. Wing nut	✓			
11. Woodruff key			✓	
12. Lockwire	✓			
13. Thread Lubricant & other Adhesives	✓			

Tasks	Complete			Observation / Hints
	Yes	No	N/A	
Thread Identification				
UNC	✓			
UNF	✓			
Whitworth	✓			
Metric	✓			
AF	✓			
BSW	✓			

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Perform close the job by ensuring all systems or conditions is in the standard condition	✓			
Ensure all systems or conditions are in standard condition.	✓			

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Reporting All relevant documentation completed correctly and approved by customer (if required).	✓			

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Safety Using PPE related to the job	✓			
Follows relevant Workplace Safety Guidelines (LOTO, Safety Equipment)	✓			
State and follow Safety Precautions	✓			
Serviceman completes job without accident due to incorrect procedure using hand tools.	✓			
Tasks completed without damage equipment and tools	✓			

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Contamination Control Environmental Practices & Housekeeping	✓			
Tasks Perform etiquette/manner after completing the job	✓			
Perform etiquette/manner when closing the communication.	✓			

General Comments

RESULT: COMPETENT NOT YET COMPETENT (please check (N))

Student: M. Arkon Aeta (A.)

Date: 11/12/2025

Signature

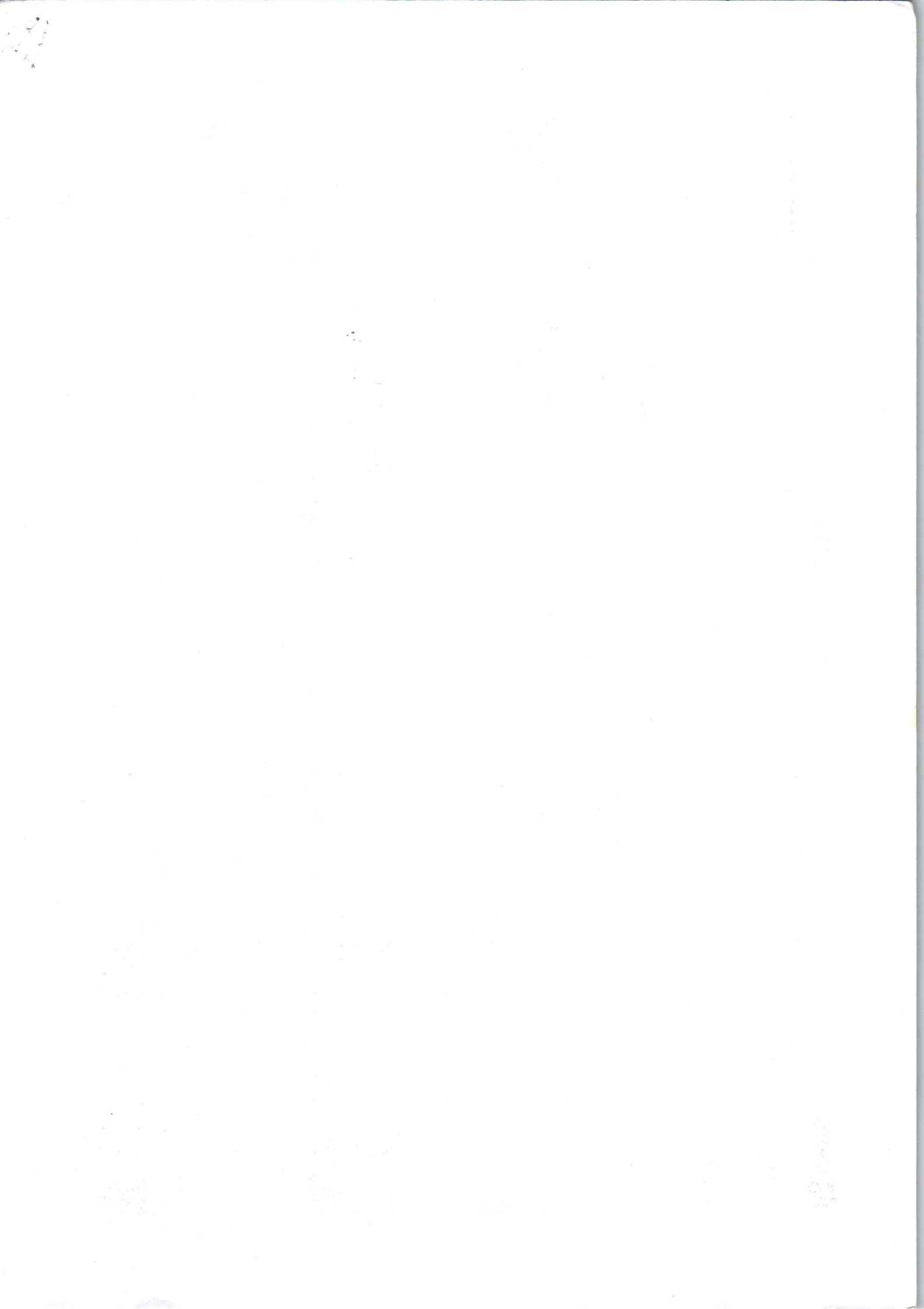
Assessor: Shanzun TB

Date: 11/12/2025

Signature: 

Supervisor: _____
Name Date Signature

Data Recorded: _____
Name Date Signature



12G ~~12G~~

4 3/4

Spec: 6V-1426

16G

(A) = 2, 12/16

3/8 in

2 3/4

Circlip: 2.955 (S)

(A) 3.000 in

= 9W-6278

(B) 0.129 in

Nut (1): thread pitch: 12G

9/16

(B) = 14/16 = 7/8 in = SP-0539

(A) = 0.48 in

Nut (2) = 14G

1" in

(A) = 0.85 in

= 1A-1935

(B) = 1, 8/16 = 1/2 = 1 1/2

inchi/imperial

bolt

~~10-4569~~ = 10-4569 = (A) = 4 1/4 in

oil coated . 13G

(b) = 0.35 in

1/2

(c) = 0.237 in

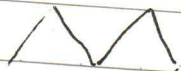
bolt metrics:

(B) = 7 mm

(A) = 80 mm

oil coated: 6V-5696 (C) = 17 mm (D) = 50 mm

M12 x 1.75



DATE

10-1-2019
 10-2-2019
 10-3-2019
 10-4-2019
 10-5-2019
 10-6-2019
 10-7-2019
 10-8-2019
 10-9-2019
 10-10-2019
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 10-13-2019
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 10-24-2019
 10-25-2019
 10-26-2019
 10-27-2019
 10-28-2019
 10-29-2019
 10-30-2019
 10-31-2019

7 step fasteners

→ P.N.

1. Pastikan fastener benar (sesuai) → OSS / SIS
2. Pastikan fastener tidak rusak & bersih (sesuai std.)
3. Cari spesifikasi torse yang sesuai (SIS)
4. lakukan pelumasan pada fastener
5. Kalibrasi tools dengan benar sesuai standart (prosedur)
6. lakukan pengerjaan sesuai SOP, tautan, Torse, TTT,
7. tandai fastener pakai white marker

→ SIS DAIRI

torque, kurva, tightness

SIS Spec

General Torque

DATE

S M T W T F S

I have been thinking about you a lot lately
 and wondering how you are getting on.
 I hope you are well and happy.
 I would love to hear from you soon.
 Give my love to everyone.
 I am still here and still the same.
 I hope you are all well.
 I love you all very much.
 I hope you are all well.
 I love you all very much.

I hope you are all well.
 I love you all very much.
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Screws

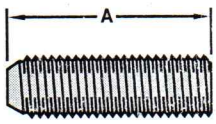
Taper Lock/Studs/Inch/Coarse Thread (Cont'd.)

Thread Size (in - TPI)	A	
	Screw Length	Part Number
3/8 - 16	2 3/8 in	106-1793
3/8 - 16	2 5/8 in	3M-0496
3/8 - 16	2 5/8 in	9L-1658
3/8 - 16	2 3/4 in	6V-1426
3/8 - 16	2 13/16 in	7S-6719
3/8 - 16	2 15/16 in	9M-3296
3/8 - 16	3 1/16 in	9L-1657
3/8 - 16	3 1/8 in	2M-8411
3/8 - 16	3 3/16 in	4S-6137
3/8 - 16	3 11/32 in	9X-2840
3/8 - 16	3 35/64 in	6V-1427
3/8 - 16	3 9/16 in	2M-2488
3/8 - 16	3 15/16 in	106-1792
3/8 - 16	4 in	6L-4428
3/8 - 16	4 3/16 in	2P-1974
3/8 - 16	4 1/2 in	101-8917
1/2 - 13	1 9/16 in	8M-8778
1/2 - 13	1 3/4 in	2D-8153
1/2 - 13	2 in	3D-0490
1/2 - 13	2 3/16 in	5M-1932
1/2 - 13	2 3/8 in	2D-8154

Thread Size (in - TPI)	A	
	Screw Length	Part Number
1/2 - 13	2 9/16 in	4J-6925
1/2 - 13	2 13/16 in	3D-0472
1/2 - 13	3 in	3D-6627
1/2 - 13	3 1/8 in	2D-8426
1/2 - 13	3 3/8 in	9H-1288
1/2 - 13	3 9/16 in	2D-8155
1/2 - 13	3 13/16 in	3D-0473
1/2 - 13	4 1/2 in	5P-7071
5/8 - 11	2 3/16 in	3D-4639
5/8 - 11	2 3/8 in	2D-8822
5/8 - 11	2 9/16 in	2D-5238
5/8 - 11	2 3/4 in	4D-4823
5/8 - 11	2 15/16 in	6L-7655
5/8 - 11	3 3/16 in	3J-8154
5/8 - 11	3 3/8 in	3D-8439
5/8 - 11	3 9/16 in	3D-5963
5/8 - 11	4 in	5P-3887
5/8 - 11	4 3/16 in	5D-4809
3/4 - 10	2 9/16 in	4D-6579
3/4 - 10	2 3/4 in	2D-8369
3/4 - 10	2 15/16 in	4D-6578

Thread Size (in - TPI)	A	
	Screw Length	Part Number
3/4 - 10	3 1/8 in	4D-7246
3/4 - 10	3 3/8 in	7D-3504
3/4 - 10	3 9/16 in	5J-6796
3/4 - 10	3 13/16 in	6D-1915
3/4 - 10	4 3/16 in	2P-1303
7/8 - 9	3 1/8 in	7D-2838
7/8 - 9	3 9/16 in	4D-6589
7/8 - 9	3 3/4 in	139-4774
7/8 - 9	4 3/16 in	4D-7259
7/8 - 9	4 7/16 in	5P-2098
1 - 8	3 15/16 in	229-4975
1 - 8	3 15/16 in	139-4775
1 - 8	3 15/16 in	5D-3118
1 - 8	4 3/16 in	9M-5854
1 - 8	4 7/16 in	9M-3948
1 - 8	4 15/16 in	6D-0419
1 - 8	5 1/8 in	5D-0600
1 1/2 - 16	2 5/16 in	2W-8225
1 1/2 - 16	3 9/8 in	2P-4304

Taper Lock/Studs/Metric/Coarse Thread



- Heat treated with a direct-hardening process.
- Hardened to Rockwell C33-39
- Designed with a taper point for a plug tap.
- Meet SAE grade 8 strength requirements.

Thread Size (dia x pitch)	A	
	Screw Length	Part Number
M8 x 1.25	30 mm	329-8793
M8 x 1.25	40 mm	191-6301
M8 x 1.25	45 mm	232-5849
M8 x 1.25	50 mm	295-4142
M8 x 1.25	55 mm	328-0826
M8 x 1.25	65 mm	9X-8496
M8 x 1.25	95 mm	192-7207
M10 x 1.50	35 mm	8T-7004
M10 x 1.50	35 mm	250-0485
M10 x 1.50	40 mm	8T-7044
M10 x 1.50	45 mm	133-7810
M10 x 1.50	45 mm	186-0870
M10 x 1.50	45 mm	351-9434
M10 x 1.50	45 mm	9X-8281
M10 x 1.50	50 mm	264-0168

Thread Size (dia x pitch)	A	
	Screw Length	Part Number
M10 x 1.50	50 mm	245-9750
M10 x 1.50	50 mm	281-2592
M10 x 1.50	55 mm	309-1906
M10 x 1.50	60 mm	288-4402
M10 x 1.50	65 mm	109-3001
M10 x 1.50	70 mm	231-0336
M10 x 1.50	75 mm	224-5445
M10 x 1.50	80 mm	259-7140
M10 x 1.50	85 mm	116-3715
M10 x 1.50	85 mm	288-4403
M10 x 1.50	95 mm	268-4772
M10 x 1.50	100 mm	335-2395
M10 x 1.50	100 mm	309-1935
M10 x 1.50	100 mm	274-6095
M12 x 1.75	45 mm	141-9481

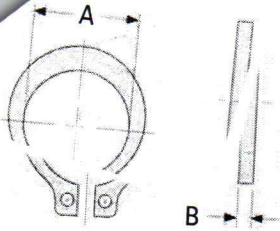
Thread Size (dia x pitch)	A	
	Screw Length	Part Number
M12 x 1.75	50 mm	8T-5414
M12 x 1.75	55 mm	3E-4319
M12 x 1.75	55 mm	124-8101
M12 x 1.75	65 mm	246-5451
M12 x 1.75	70 mm	310-1945
M12 x 1.75	80 mm	272-1882
M16 x 2.00	70 mm	8C-0623
M16 x 2.00	85 mm	296-5175
M16 x 2.00	85 mm	151-6286
M16 x 2.00	90 mm	341-3770
M16 x 2.00	120 mm	342-9452
M16 x 2.00	130 mm	8C-6709
M20 x 2.50	75 mm	116-3719
M20 x 2.50	85 mm	286-2631
M20 x 2.50	85 mm	160-0011





ings

Ring/External/Inch



- Made of tempered carbon steel.

② cirChp

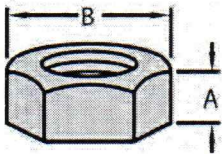
Shaft Diameter	A	B	Part Number
	Free Diameter	Thickness	
0.25 in	0.22 in	0.025 in	6H-5829
0.38 in	0.34 in	0.025 in	9M-7611
0.44 in	0.40 in	0.025 in	4H-0094
0.44 in	0.43 in	0.035 in	8C-5061
0.47 in	0.43 in	0.025 in	6L-3801
0.50 in	0.46 in	0.059 in	6P-1037
0.56 in	0.52 in	0.035 in	3D-2975
0.59 in	0.55 in	0.035 in	2L-8509
0.62 in	0.58 in	0.035 in	8F-4610
0.75 in	0.69 in	0.042 in	2J-6356
0.81 in	0.75 in	0.042 in	9F-5444
0.94 in	0.87 in	0.042 in	6H-6109
0.98 in	0.89 in	0.079 in	3E-4332
0.98 in	0.91 in	0.042 in	1L-8497
1.00 in	0.93 in	0.042 in	001-5600
1.06 in	0.98 in	0.050 in	3K-8276
1.12 in	1.04 in	0.050 in	5L-4019
1.19 in	1.10 in	0.050 in	4M-5285
1.25 in	1.16 in	0.050 in	2M-4287
1.31 in	1.21 in	0.050 in	4D-8309
1.38 in	1.27 in	0.050 in	1J-6474
1.50 in	1.38 in	0.098 in	145-0909
1.56 in	1.45 in	0.062 in	2L-6965
1.62 in	1.50 in	0.062 in	9L-2336
1.69 in	1.56 in	0.062 in	5L-2931
1.77 in	1.64 in	0.062 in	2J-7550
1.81 in	1.68 in	0.062 in	5K-9106
1.85 in	1.69 in	0.120 in	253-3262
1.88 in	1.74 in	0.062 in	1K-6995
1.89 in	1.77 in	0.098 in	3E-3891
1.93 in	1.76 in	0.120 in	7T-7162
1.97 in	1.82 in	0.062 in	077-9687
2.12 in	1.96 in	0.078 in	1K-6984
2.16 in	1.99 in	0.078 in	4K-4284
2.24 in	2.07 in	0.063 in	094-1399
2.50 in	2.31 in	0.078 in	5K-4627
2.56 in	2.32 in	0.120 in	9W-6927
2.56 in	2.38 in	0.078 in	6S-1753
2.56 in	2.39 in	0.102 in	7Y-4955
2.62 in	2.43 in	0.078 in	1K-6992
2.74 in	2.68 in	0.142 in	8E-2144
2.75 in	2.54 in	0.093 in	5J-3864
2.80 in	2.50 in	0.120 in	5P-9862

Shaft Diameter	A	B	Part Number
	Free Diameter	Thickness	
2.83 in	2.62 in	0.197 in	9W-5915
2.94 in	2.72 in	0.093 in	7J-6580
3.02 in	2.79 in	0.126 in	147-5764
3.03 in	2.75 in	0.120 in	5P-9863
3.11 in	2.85 in	0.157 in	9W-5925
3.16 in	2.92 in	0.093 in	1N-8620
3.27 in	2.97 in	0.142 in	6Y-5790
3.35 in	3.09 in	0.093 in	9S-4368
3.35 in	3.15 in	0.157 in	9W-6277
3.50 in	3.24 in	0.109 in	5L-4753
3.55 in	3.35 in	0.157 in	9W-6278
3.62 in	3.35 in	0.109 in	7J-6525
3.74 in	3.58 in	0.126 in	315-6224
4.00 in	3.70 in	0.109 in	8F-1959
4.02 in	3.78 in	0.207 in	6V-2835
4.25 in	3.99 in	0.109 in	1N-5410
4.38 in	4.11 in	0.109 in	5H-5012
4.75 in	4.46 in	0.109 in	2L-0049
5.75 in	5.40 in	0.125 in	5L-8579
6.25 in	5.87 in	0.156 in	2L-0044
10.07 in	9.91 in	0.120 in	151-5729
-	0.16 in	0.020 in	1W-0565
-	0.21 in	0.020 in	7N-8821
-	0.33 in	0.026 in	4N-2953
-	0.39 in	0.062 in	5B-6161
-	0.40 in	0.059 in	2S-1387
-	0.52 in	0.035 in	7N-6825
-	0.61 in	0.060 in	3J-6008
-	0.62 in	0.031 in	5I-9311
-	0.62 in	0.038 in	4T-0933
-	0.62 in	0.083 in	096-4032
-	0.67 in	0.102 in	4N-7521
-	0.72 in	0.062 in	4F-3544
-	0.78 in	0.079 in	130-8150
-	0.78 in	0.105 in	4H-8158
-	0.91 in	0.060 in	6H-3455
-	0.91 in	0.060 in	1A-6235
-	1.06 in	0.236 in	243-2101
-	1.06 in	0.630 in	234-8962
-	1.34 in	0.090 in	1A-4590
-	1.37 in	0.120 in	2A-4758
-	1.44 in	0.091 in	191-2164
-	1.52 in	0.062 in	7S-4439

Shaft Diameter	A	B	Part Number
	Free Diameter	Thickness	
-	1.53 in	0.120 in	2B-9747
-	1.56 in	0.118 in	3T-2405
-	1.61 in	0.120 in	9W-6926
-	1.62 in	0.120 in	4B-1127
-	1.64 in	0.207 in	3K-9269
-	1.65 in	0.098 in	274-8635
-	1.75 in	0.105 in	4K-1240
-	1.81 in	0.120 in	4B-1136
-	1.81 in	0.120 in	9W-6904
-	1.86 in	0.125 in	6S-3172
-	1.88 in	0.157 in	213-4227
-	1.90 in	0.207 in	3K-9263
-	2.01 in	0.126 in	197-0087
-	2.02 in	0.063 in	096-7380
-	2.12 in	0.120 in	9H-6425
-	2.14 in	0.135 in	4M-1709
-	2.16 in	0.125 in	5M-4443
-	2.16 in	0.207 in	6K-0468
-	2.25 in	0.125 in	6H-2953
-	2.26 in	0.188 in	3S-2619
-	2.28 in	0.095 in	3K-6701
-	2.31 in	0.120 in	4H-6195
-	2.31 in	0.125 in	6H-6237
-	2.33 in	0.188 in	4S-6712
-	2.36 in	0.126 in	195-6899
-	2.37 in	0.120 in	1M-1655
-	2.41 in	0.120 in	4B-1135
-	2.64 in	0.138 in	099-6975
-	2.69 in	0.187 in	6Y-1890
-	2.71 in	0.188 in	8S-6328
-	2.87 in	0.177 in	104-7336
-	3.09 in	0.207 in	7K-4520
-	3.12 in	0.187 in	2M-4479
-	3.15 in	0.187 in	4M-1708
-	3.19 in	0.120 in	165-0512
-	3.38 in	0.207 in	5K-7989
-	3.88 in	0.207 in	7S-2020
-	3.94 in	0.118 in	177-5241
-	3.98 in	0.250 in	8G-1259
-	4.21 in	0.250 in	7P-6552
-	4.25 in	0.188 in	2M-4480
-	4.44 in	0.188 in	2P-3421
-	4.78 in	0.250 in	8P-4608

Nuts

Nuts/Hex/ Head/Inch



- Made of fine grain steel.
- Designed with a washer-faced surface.
- Provides a tensile strength comparable to SAE Grade 8 bolt.
- Hardened nuts marked with 6 lines, dashes, or dots for identification.

Coarse Thread UNC/Phosphate & Oil Coated/Hardened

Thread Size (in - TPI)	A	B	Part Number
	Nut Height	Nut Width	
1/4 - 20	0.22 in	7/16 in	9S-8750
5/16 - 18	0.27 in	1/2 in	5S-0003
3/8 - 16	0.33 in	9/16 in	9S-8752
7/16 - 14	0.38 in	11/16 in	3S-1546
1/2 - 13	0.44 in	3/4 in	1F-7958
9/16 - 12	0.48 in	7/8 in	5P-0539
5/8 - 11	0.55 in	15/16 in	4K-0367

Thread Size (in - TPI)	A	B	Part Number
	Nut Height	Nut Width	
3/4 - 10	0.64 in	1 1/8 in	2J-3506
7/8 - 9	0.75 in	1 5/16 in	2J-3505
1 - 8	0.86 in	1 1/2 in	2J-3507
1 1/8 - 7	0.97 in	1 11/16 in	4J-5977
1 1/4 - 7	1.06 in	1 7/8 in	3K-9770
1 3/8 - 6	1.17 in	2 1/16 in	9M-3770
1 1/2 - 6	1.28 in	2 1/4 in	9S-8216

Coarse Thread UNC/Zinc Plated/Hardened

Thread Size (in - TPI)	A	B	Part Number
	Nut Height	Nut Width	
1/4 - 20	0.22 in	7/16 in	6V-8185
5/16 - 18	0.27 in	1/2 in	6V-8189
3/8 - 16	0.33 in	9/16 in	6V-8801
7/16 - 14	0.37 in	11/16 in	7X-0447
1/2 - 13	0.44 in	3/4 in	6V-8188
5/8 - 11	0.55 in	15/16 in	7X-0448

Thread Size (in - TPI)	A	B	Part Number
	Nut Height	Nut Width	
3/4 - 10	0.64 in	1 1/8 in	6V-8182
7/8 - 9	0.75 in	1 5/16 in	7X-0449
1 - 8	0.86 in	1 1/2 in	6V-8190
1 1/8 - 7	0.61 in	1 11/16 in	2H-3787
1 1/4 - 7	1.06 in	1 7/8 in	7X-0451
1 1/2 - 6	1.28 in	2 1/4 in	7X-0452

Fine Thread UNF/Phosphate & Oil Coated/Hardened

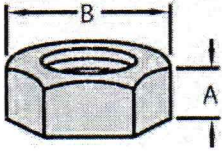
Thread Size (in - TPI)	A	B	Part Number
	Nut Height	Nut Width	
1/4 - 28	0.22 in	7/16 in	9S-8748
5/16 - 24	0.27 in	1/2 in	9S-8751
3/8 - 24	0.33 in	9/16 in	3S-2713
7/16 - 20	0.38 in	11/16 in	9S-8905
1/2 - 20	0.44 in	3/4 in	6B-6684
9/16 - 18	0.48 in	7/8 in	5P-0540
5/8 - 18	0.55 in	15/16 in	6B-6683

Thread Size (in - TPI)	A	B	Part Number
	Nut Height	Nut Width	
3/4 - 16	0.64 in	1 1/8 in	6B-6682
7/8 - 14	0.75 in	1 5/16 in	1A-5666
1 - 14	0.86 in	1 1/2 in	1A-1935
1 1/8 - 12	0.97 in	1 11/16 in	3S-1356
1 1/4 - 12	1.06 in	1 7/8 in	7H-7539
1 3/8 - 12	1.17 in	2 in	2M-0400
1 1/2 - 12	1.28 in	2 1/4 in	8H-3390



Nuts

Nuts/Hex/ Head/Inch



- Made of fine grain steel.
- Designed with a washer-faced surface.
- Provides a tensile strength comparable to SAE Grade 8 bolt.
- Hardened nuts marked with 6 lines, dashes, or dots for identification.

Coarse Thread UNC/Phosphate & Oil Coated/Hardened

Thread Size (in - TPI)	A	B	Part Number
	Nut Height	Nut Width	
1/4 - 20	0.22 in	7/16 in	9S-8750
5/16 - 18	0.27 in	1/2 in	5S-0003
3/8 - 16	0.33 in	9/16 in	9S-8752
7/16 - 14	0.38 in	11/16 in	3S-1546
1/2 - 13	0.44 in	3/4 in	1F-7958
9/16 - 12	0.48 in	7/8 in	5P-0539
5/8 - 11	0.55 in	15/16 in	4K-0367

Thread Size (in - TPI)	A	B	Part Number
	Nut Height	Nut Width	
3/4 - 10	0.64 in	1 1/8 in	2J-3506
7/8 - 9	0.75 in	1 5/16 in	2J-3505
1 - 8	0.86 in	1 1/2 in	2J-3507
1 1/8 - 7	0.97 in	1 11/16 in	4J-5977
1 1/4 - 7	1.06 in	1 7/8 in	3K-9770
1 3/8 - 6	1.17 in	2 1/16 in	9M-3770
1 1/2 - 6	1.28 in	2 1/4 in	9S-8216

Coarse Thread UNC/Zinc Plated/Hardened

Thread Size (in - TPI)	A	B	Part Number
	Nut Height	Nut Width	
1/4 - 20	0.22 in	7/16 in	6V-8185
5/16 - 18	0.27 in	1/2 in	6V-8189
3/8 - 16	0.33 in	9/16 in	6V-8801
7/16 - 14	0.37 in	11/16 in	7X-0447
1/2 - 13	0.44 in	3/4 in	6V-8188
5/8 - 11	0.55 in	15/16 in	7X-0448

Thread Size (in - TPI)	A	B	Part Number
	Nut Height	Nut Width	
3/4 - 10	0.64 in	1 1/8 in	6V-8182
7/8 - 9	0.75 in	1 5/16 in	7X-0449
1 - 8	0.86 in	1 1/2 in	6V-8190
1 1/8 - 7	0.61 in	1 11/16 in	2H-3787
1 1/4 - 7	1.06 in	1 7/8 in	7X-0451
1 1/2 - 6	1.28 in	2 1/4 in	7X-0452

Fine Thread UNF/Phosphate & Oil Coated/Hardened

Thread Size (in - TPI)	A	B	Part Number
	Nut Height	Nut Width	
1/4 - 28	0.22 in	7/16 in	9S-8748
5/16 - 24	0.27 in	1/2 in	9S-8751
3/8 - 24	0.33 in	9/16 in	3S-2713
7/16 - 20	0.38 in	11/16 in	9S-8905
1/2 - 20	0.44 in	3/4 in	6B-6684
9/16 - 18	0.48 in	7/8 in	5P-0540
5/8 - 18	0.55 in	15/16 in	6B-6683

Thread Size (in - TPI)	A	B	Part Number
	Nut Height	Nut Width	
3/4 - 16	0.64 in	1 1/8 in	6B-6682
7/8 - 14	0.75 in	1 5/16 in	1A-5656
1 - 14	0.86 in	1 1/2 in	1A-1935
1 1/8 - 12	0.97 in	1 11/16 in	3S-1356
1 1/4 - 12	1.06 in	1 7/8 in	7H-7539
1 3/8 - 12	1.17 in	2 in	2M-0400
1 1/2 - 12	1.28 in	2 1/4 in	8H-3390

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nut-2



Hex Head Bolts/Inch/UNC/Phosphate & Oil Coated (Cont'd.)

Thread Size (in - TPI)	A	B	C	D	Part Number	Thread Size (in - TPI)	A	B	C	D	Part Number
	Bolt Length	Head Height	Head Width	Grip Length			Bolt Length	Head Height	Head Width	Grip Length	
3/8 - 16	6 in	0.29 in	0.56 in	4.87 in	1D-4706	1/2 - 13	1 1/4 in	0.39 in	0.75 in	0.31 in	0S-1595
3/8 - 16	6 1/4 in	0.29 in	0.56 in	4.75 in	8F-8544	1/2 - 13	1 3/8 in	0.39 in	0.75 in	0.44 in	7B-3235
3/8 - 16	6 1/2 in	0.29 in	0.56 in	5.25 in	4F-0411	1/2 - 13	1 1/2 in	0.39 in	0.75 in	0.25 in	0S-1585
3/8 - 16	7 in	0.29 in	0.56 in	5.75 in	9F-8999	1/2 - 13	1 3/4 in	0.39 in	0.75 in	0.44 in	0S-1587
3/8 - 16	7 1/2 in	0.29 in	0.56 in	6.25 in	6B-1557	1/2 - 13	2 in	0.39 in	0.75 in	0.75 in	1A-1460
3/8 - 16	8 in	0.29 in	0.56 in	6.75 in	8F-6350	1/2 - 13	2 1/4 in	0.39 in	0.75 in	1.00 in	2B-0947
3/8 - 16	8 1/2 in	0.29 in	0.56 in	7.25 in	9F-2773	1/2 - 13	2 1/2 in	0.39 in	0.75 in	1.25 in	9S-1366
3/8 - 16	9 in	0.29 in	0.56 in	7.75 in	5F-6044	1/2 - 13	2 3/4 in	0.39 in	0.75 in	1.50 in	1A-5822
3/8 - 16	Nut	-	-	-	9S-8752	1/2 - 13	3 in ⁽¹⁾	0.39 in	0.75 in	1.75 in	0L-1329
3/8	Washer	-	-	-	5M-2894	1/2 - 13	3 1/4 in	0.39 in	0.75 in	2.00 in	0V-0375
Thread Size (in - TPI) 7/16 - 14						1/2 - 13	3 1/2 in ⁽¹⁾	0.39 in	0.75 in	2.25 in	1D-4566
7/16 - 14	3/4 in	0.34 in	0.69 in	0.19 in	5P-0060	1/2 - 13	3 3/4 in	0.39 in	0.75 in	2.50 in	1B-2886
7/16 - 14	7/8 in	0.34 in	0.69 in	0.13 in	3L-0526	1/2 - 13	4 in	0.39 in	0.75 in	2.75 in	0S-1573
7/16 - 14	1 in	0.34 in	0.69 in	0.13 in	0T-0318	1/2 - 13	4 1/4 in	0.39 in	0.75 in	3.00 in	1D-4569
7/16 - 14	1 1/8 in	0.34 in	0.69 in	0.13 in	4F-8965	1/2 - 13	4 1/2 in	0.39 in	0.75 in	3.25 in	8S-9089
7/16 - 14	1 1/4 in	0.34 in	0.69 in	0.13 in	0T-0320	1/2 - 13	4 3/4 in ⁽¹⁾	0.39 in	0.75 in	3.50 in	2B-2006
7/16 - 14	1 3/8 in	0.34 in	0.69 in	0.25 in	3H-5368	1/2 - 13	4 3/4 in	0.39 in	0.75 in	3.50 in	9X-8876
7/16 - 14	1 1/2 in	0.34 in	0.69 in	0.37 in	0T-0772	1/2 - 13	5 in ⁽¹⁾	0.39 in	0.75 in	3.75 in	2H-6488
7/16 - 14	1 3/4 in	0.34 in	0.69 in	0.63 in	0T-0768	1/2 - 13	5 in	0.39 in	0.75 in	3.75 in	9X-8877
7/16 - 14	2 in	0.34 in	0.69 in	0.87 in	0T-0319	1/2 - 13	5 1/4 in ⁽¹⁾	0.39 in	0.75 in	4.00 in	6F-5282
7/16 - 14	2 1/4 in	0.34 in	0.69 in	1.13 in	1D-4707	1/2 - 13	5 1/2 in	0.39 in	0.75 in	4.25 in	1D-4572
7/16 - 14	2 1/2 in	0.34 in	0.69 in	1.37 in	1D-4703	1/2 - 13	6 in	0.39 in	0.75 in	4.75 in	1D-4574
7/16 - 14	2 3/4 in	0.34 in	0.69 in	1.63 in	1D-4556	1/2 - 13	6 1/4 in	0.39 in	0.75 in	4.75 in	9H-8260
7/16 - 14	3 in	0.34 in	0.69 in	1.87 in	4F-5192	1/2 - 13	6 1/2 in	0.39 in	0.75 in	5.00 in	2A-1531
7/16 - 14	3 1/4 in	0.34 in	0.69 in	2.13 in	3B-8428	1/2 - 13	7 in	0.39 in	0.75 in	5.50 in	1A-7669
7/16 - 14	3 1/2 in	0.34 in	0.69 in	2.37 in	7F-8698	1/2 - 13	7 1/2 in	0.39 in	0.75 in	6.00 in	1A-0168
7/16 - 14	3 3/4 in	0.34 in	0.69 in	2.63 in	9F-2491	1/2 - 13	8 in	0.39 in	0.75 in	6.50 in	9S-1374
7/16 - 14	4 in	0.34 in	0.69 in	2.87 in	4F-7226	1/2 - 13	8 1/2 in	0.39 in	0.75 in	7.00 in	1B-3573
7/16 - 14	4 1/2 in	0.34 in	0.69 in	3.25 in	4B-7220	1/2 - 13	9 in	0.39 in	0.75 in	7.50 in	6M-9613
7/16 - 14	5 in	0.34 in	0.69 in	3.75 in	5B-5059	1/2 - 13	10 in	0.39 in	0.75 in	8.50 in	6F-5281
7/16 - 14	5 1/2 in	0.34 in	0.69 in	4.37 in	8F-4197	1/2 - 13	11 in	0.39 in	0.75 in	9.50 in	8S-3887
7/16 - 14	6 in	0.34 in	0.69 in	4.87 in	8F-6419	1/2 - 13	Nut	-	-	-	1F-7958
7/16 - 14	6 1/2 in	0.34 in	0.69 in	5.13 in	3L-0742	1/2	Washer	-	-	-	5P-8245
7/16 - 14	7 in	0.34 in	0.69 in	5.63 in	7H-7209	Thread Size (in - TPI) 9/16 - 12					
7/16 - 14	7 1/2 in	0.34 in	0.69 in	6.13 in	2L-7442	9/16 - 12	1 in	0.43 in	0.87 in	0.12 in	3K-3379
7/16 - 14	9 in	0.34 in	0.69 in	7.63 in	4L-7926	9/16 - 12	1 1/4 in	0.43 in	0.87 in	0.16 in	8S-4732
7/16 - 14	11 in	0.34 in	0.69 in	9.63 in	3L-4317	9/16 - 12	1 3/8 in	0.43 in	0.87 in	0.17 in	4B-8519
7/16 - 14	Nut	-	-	-	3S-1546	9/16 - 12	1 1/2 in	0.43 in	0.87 in	0.16 in	8S-4733
7/16	Washer	-	-	-	5P-8244	9/16 - 12	2 1/2 in	0.43 in	0.87 in	1.13 in	8S-4735
Thread Size (in - TPI) 1/2 - 13						9/16 - 12	3 in	0.43 in	0.87 in	1.63 in	8S-4736
1/2 - 13	3/4 in	0.39 in	0.75 in	0.13 in	0S-1620	9/16 - 12	3 1/2 in	0.43 in	0.87 in	2.13 in	8S-4737
1/2 - 13	7/8 in	0.39 in	0.75 in	0.28 in	2H-3855	9/16 - 12	4 in	0.43 in	0.87 in	2.63 in	8S-4738
1/2 - 13	1 in	0.39 in	0.75 in	0.13 in	0S-1621	9/16 - 12	4 1/2 in	0.43 in	0.87 in	3.13 in	8S-4739
1/2 - 13	1 1/8 in	0.39 in	0.75 in	0.13 in	6H-1717	9/16 - 12	5 in	0.43 in	0.87 in	3.63 in	8S-4740

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1 High strength bolt.

Bolts

Hex Head Bolts/Metric/Coarse Thread/Phosphate & Oil Coated (Cont'd.)

Thread Size (dia x pitch)	A	B	C	D	Part Number
	Bolt Length	Head Height	Head Width	Grip Length	
M6	Washer	—	—	—	9X-8267
Thread Size (dia x pitch) M8 x 1.25					
M8 x 1.25	12 mm	6 mm	13 mm	3 mm	6V-2316
M8 x 1.25	16 mm	6 mm	13 mm	3 mm	6V-5215
M8 x 1.25	20 mm	6 mm	13 mm	3 mm	6V-5217
M8 x 1.25	25 mm	6 mm	13 mm	3 mm	6V-3940
M8 x 1.25	30 mm	6 mm	13 mm	8 mm	6V-2317
M8 x 1.25	35 mm	6 mm	13 mm	13 mm	6V-5218
M8 x 1.25	40 mm	6 mm	13 mm	18 mm	6V-5219
M8 x 1.25	45 mm	6 mm	13 mm	23 mm	8T-0276
M8 x 1.25	50 mm	6 mm	13 mm	28 mm	6V-3918
M8 x 1.25	60 mm	6 mm	13 mm	38 mm	8T-0100
M8 x 1.25	70 mm	6 mm	13 mm	48 mm	5P-8347
M8 x 1.25	80 mm	6 mm	13 mm	58 mm	6V-5221
M8 x 1.25	90 mm	6 mm	13 mm	68 mm	8T-0292
M8 x 1.25	100 mm	6 mm	13 mm	78 mm	6V-5223
M8 x 1.25	110 mm	6 mm	13 mm	88 mm	6V-3821
M8 x 1.25	120 mm	6 mm	13 mm	98 mm	6V-9607
M8 x 1.25	130 mm	6 mm	13 mm	108 mm	7X-0457
M8 x 1.25	140 mm	6 mm	13 mm	112 mm	7X-0870
M8 x 1.25	150 mm	6 mm	13 mm	122 mm	8C-4984
M8 x 1.25	Nut	—	—	—	5P-7970
M8	Washer	—	—	—	9M-1974
Thread Size (dia x pitch) M10 x 1.50					
M10 x 1.50	12 mm	7 mm	16 mm	5 mm	6V-8084
M10 x 1.50	16 mm	7 mm	16 mm	3 mm	6V-8212
M10 x 1.50	20 mm	7 mm	16 mm	5 mm	6V-6317
M10 x 1.50	25 mm	7 mm	16 mm	5 mm	6V-4248
M10 x 1.50	30 mm	7 mm	16 mm	5 mm	6V-1820
M10 x 1.50	35 mm	7 mm	16 mm	5 mm	6V-3822
M10 x 1.50	40 mm	7 mm	16 mm	14 mm	6V-5842
M10 x 1.50	45 mm	7 mm	16 mm	19 mm	6V-5843
M10 x 1.50	50 mm	7 mm	16 mm	24 mm	6V-4249
M10 x 1.50	60 mm	7 mm	16 mm	34 mm	6V-5230
M10 x 1.50	70 mm	7 mm	16 mm	44 mm	6V-7981
M10 x 1.50	80 mm	7 mm	16 mm	54 mm	8T-0643
M10 x 1.50	90 mm	7 mm	16 mm	64 mm	8T-0644
M10 x 1.50	100 mm	7 mm	16 mm	74 mm	6V-1819
M10 x 1.50	110 mm	7 mm	16 mm	78 mm	8T-0355
M10 x 1.50	120 mm	7 mm	16 mm	94 mm	8T-5030
M10 x 1.50	130 mm	7 mm	16 mm	98 mm	210-4460
M10 x 1.50	140 mm	7 mm	16 mm	108 mm	8C-2926
M10 x 1.50	150 mm	7 mm	16 mm	118 mm	8T-9085
M10 x 1.50	160 mm	7 mm	16 mm	128 mm	8T-0356
M10 x 1.50	180 mm	7 mm	16 mm	148 mm	8T-7950
M10 x 1.50	200 mm	7 mm	16 mm	168 mm	8T-6854
M10 x 1.50	Nut	—	—	—	2Y-5829
M10	Washer	—	—	—	6V-5839

Thread Size (dia x pitch)	A	B	C	D	Part Number
	Bolt Length	Head Height	Head Width	Grip Length	
Thread Size (dia x pitch) M12 x 1.75					
M12 x 1.75	16 mm	8 mm	18 mm	5 mm	6V-8177
M12 x 1.75	20 mm	8 mm	18 mm	5 mm	8T-0293
M12 x 1.75	25 mm	8 mm	18 mm	5 mm	6A-5591
M12 x 1.75	30 mm	8 mm	18 mm	5 mm	6V-3668
M12 x 1.75	35 mm	8 mm	18 mm	5 mm	6V-8675
M12 x 1.75	40 mm	8 mm	18 mm	5 mm	6V-8197
M12 x 1.75	45 mm	8 mm	18 mm	15 mm	6V-5684
M12 x 1.75	50 mm	8 mm	18 mm	20 mm	6V-7673
M12 x 1.75	60 mm	8 mm	18 mm	30 mm	6V-3823
M12 x 1.75	70 mm	8 mm	18 mm	40 mm	6V-8336
M12 x 1.75	80 mm	8 mm	18 mm	50 mm	6V-5696
M12 x 1.75	90 mm	8 mm	18 mm	60 mm	8T-0372
M12 x 1.75	100 mm	8 mm	18 mm	70 mm	8T-0106
M12 x 1.75	110 mm	8 mm	18 mm	80 mm	8T-0646
M12 x 1.75	120 mm	8 mm	18 mm	90 mm	6V-8004
M12 x 1.75	125 mm	8 mm	18 mm	95 mm	5I-7718
M12 x 1.75	140 mm	8 mm	18 mm	104 mm	7X-0909
M12 x 1.75	160 mm	8 mm	18 mm	124 mm	8T-0162
M12 x 1.75	180 mm	8 mm	18 mm	144 mm	8T-6991
M12 x 1.75	200 mm	8 mm	18 mm	147 mm	8C-3226
M12 x 1.75	Nut	—	—	—	6V-8149
M12	Washer	—	—	—	5P-8245
Thread Size (dia x pitch) M14 x 2.00					
M14 x 2.00	20 mm	9 mm	21 mm	6 mm	8T-0373
M14 x 2.00	25 mm	9 mm	21 mm	6 mm	8T-0296
M14 x 2.00	30 mm	9 mm	21 mm	6 mm	8T-0297
M14 x 2.00	35 mm	9 mm	21 mm	6 mm	6V-8550
M14 x 2.00	45 mm	9 mm	21 mm	6 mm	8T-0226
M14 x 2.00	50 mm	9 mm	21 mm	16 mm	6V-5685
M14 x 2.00	60 mm	9 mm	21 mm	26 mm	214-6277
M14 x 2.00	80 mm	9 mm	21 mm	46 mm	8T-3653
M14 x 2.00	90 mm	9 mm	21 mm	56 mm	8C-0537
M14 x 2.00	Nut	—	—	—	139-6366
Thread Size (dia x pitch) M16 x 2.00					
M16 x 2.00	25 mm	10 mm	24 mm	4 mm	6V-5224
M16 x 2.00	30 mm	10 mm	24 mm	3 mm	8T-0299
M16 x 2.00	35 mm	10 mm	24 mm	4 mm	6V-5844
M16 x 2.00	40 mm	10 mm	24 mm	5 mm	6V-4429
M16 x 2.00	45 mm	10 mm	24 mm	5 mm	8T-0375
M16 x 2.00	50 mm	10 mm	24 mm	12 mm	6V-5686
M16 x 2.00	60 mm	10 mm	24 mm	22 mm	6V-3303
M16 x 2.00	70 mm	10 mm	24 mm	32 mm	8T-0357
M16 x 2.00	80 mm	10 mm	24 mm	42 mm	8T-0281
M16 x 2.00	90 mm	10 mm	24 mm	52 mm	8T-0358
M16 x 2.00	100 mm	10 mm	24 mm	62 mm	8T-0207
M16 x 2.00	110 mm	10 mm	24 mm	72 mm	8T-0649
M16 x 2.00	120 mm	10 mm	24 mm	82 mm	8T-0282


6
bolt
matrix



ANALISIS LINGKUNGAN KESELAMATAN KERJA / JOB SAFETY ENVIRONMENT ANALYSIS

Pekerjaan Task	Inspect Fastener	Nomor JSEA JSEA Number	1	Halaman Page	1	Dari Of	2
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Tanggal Pembuatan JSEA Date of JSEA	10 Desember 2025	Departemen Dept	Service	Tempat Kerja Work Location	Workshop TAB
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Disusun Oleh Compiled By	Arkan	TTD Sign		Review Oleh Reviewed By	SHE	TTD Sign		Atasan Superior		TTD Sign	
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Apakah Anda sudah terlatih untuk melakukan pekerjaan ini ? / Are you properly trained to complete these task ? Ya / Yes Tidak / No

Apa yang Anda perlukan untuk memastikan bahwa pekerjaan selesai tanpa adanya kecelakaan kerja ? / What do you need to ensure this job is completed incident free ?

Tools yang digunakan sudah sesuai dengan Manual

Siapa yang bertanggung jawab untuk menghentikan pekerjaan jika terjadi perubahan pekerjaan atau gangguan kondisi lingkungan kerja ? / Who is responsible for Stop Work Authority if change job or workplace distraction could ?

ABCD-1 (Technician Leader) / Mr. X (Customer)

Apakah Anda memerlukan peralatan LOTO ? / Are you need LOTO Equipments ? Ya / Yes Tidak / No

Apakah Anda mengetahui ERP/MERP dari pekerjaan yang sedang dilakukan ? Ya / Yes Tidak / No *Jika tidak, silahkan tambahkan dalam urutan langkah tugas diawal*

Kondisi Lingkungan / Environmental Conditions	Cuaca / Weather	Hujan	Medan / Terrain	Rata
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Pengendalian Sumber Bahaya / Hazardous Energy Control	<input type="checkbox"/> Listrik / Electrical	<input checked="" type="checkbox"/> Gravitasi (Benda jatuh, tertimpa) / Gravitation (Falling objects, struck down)	<input type="checkbox"/> Pneumatik / Pneumatic
	<input type="checkbox"/> Hidraulik / Hydraulic	<input type="checkbox"/> Mekanis / Mechanical	<input type="checkbox"/> Panas / Thermal

APD yang diperlukan Required PPE	<input checked="" type="checkbox"/> Helm / Safety Helm	<input type="checkbox"/> Pelindung Muka / Face shield	<input checked="" type="checkbox"/> Kacamata / Safety Glass
	<input checked="" type="checkbox"/> Sarung Tangan / Hand Gloves	<input type="checkbox"/> Pelindung Pernafasan / Respiratory Protection	<input type="checkbox"/> Perlindungan Kejutahan / Fall Protection
	<input checked="" type="checkbox"/> Sepatu / Safety Shoes	<input type="checkbox"/> Pelindung Telinga / Hearing Protection	<input type="checkbox"/> Lain-Lain / Other

Hal yang perlu dipertimbangkan dalam mengidentifikasi bahaya / These to consider in identify hazards :

Bahaya Keselamatan : Kondisi tidak aman yang dapat menyebabkan injury atau kematian seperti terpeleceh, terpeleset/terjatuh, tertimpa dll.

Safety Hazard : unsafe conditions that can cause injury or even death, such as spill/falls, pinch point, struck by, etc.

Bahaya Fisik : Listrik, Api/ledakan, Kebisingan, Radiasi, Panas, Tekanan, Terjepit, Tersandung/Terjatuh, Tertimpa, Getaran.

Physical Hazards : Electrical, Fire/Explosion, Noise, Radiations, Thermal, Pressure, Pinch Point, Slips/Falls, Struck by, Vibration.

Bahaya Kimia : Terhirup, terkena kulit, injeksi, tertelan, terserap.

Chemical Hazards : Inhalation, skin contact, injection, ingestion, absorption.

Bahaya Biologi : Patogen yang ditularkan melalui darah, jamur, tanaman/serangga/hewan.

Biological Hazards : bloodborne pathogens, mold, Plant/Insect/Animals

Bahaya Ergonomi : Gerakan berulang-ulang, beban yang berlebihan, Postur Janggal, Durasi kerja, Desain area kerja.

Ergonomic Hazards : Repetitions, Forcefull extention, Awkward Posture, Duration, Work area desain.

Bahaya Organisasi : stres atau bahaya terkait dengan masalah tempat kerja yang menyebabkan efek jangka panjang atau pendek, beban kerja yang berat dan kekerasan ditempat kerja.

Organizational hazards : stressors or hazards associated with workplace issues that cause long or short term effects heavy workloads, stressful interactions and workplaces violence.

No	Urutan Dasar Langkah Tugas / Job Steps (* Maksimum 15 Langkah / Maximum 15 Steps)	Bahaya Yang Terkait / Potential Hazard(s)	Tindakan Perbaikan / Recommended Action
A ERP/MERP			
1.	Saat pekerjaan terjadi gempa	tertipa reruntuhan	1.1 Segera evakuasi menuju master point baru ditetapkan/ tempat terbuka 1.2 Melaporkan kejadian kepada atasan
2.	Saat pekerjaan ada teknisi yang pingsan	Cidera kepala, tangan tergores	2.1 Lakukan protokol P3K 2.2 Segera evakuasi korban menuju fasilitas kesehatan terdekat 2.3 Melaporkan kejadian kepada atasan
B Langkah Pekerjaan			
1.	Walk Around Inspection	tersandung komponen / kabel	1.1 Rapikan komponen /kabel 1.2 perhatikan langkah kaki saat berjalan 1.3 fokus saat bekerja
2.	Prepare Tools / Fastener	terpeleceh oli berceceran fastener terjatuh mengenai kaki	1.4 lap oli dengan absorbent pad 2.1 Pegang fastener dengan benar 2.2 gunakan safety shoes 2.3 fokus saat bekerja
3.	Doing Inspect Fastener	fastener rusak / terkontaminasi Tangan tergores thread tajam	3.1 Bersihkan fastener menggunakan solar / WP 3.2 Candi fastener bila rusak 3.3 Perhatikan kontak pegang fastener 3.4 gunakan safety gloves 3.5 Hati-hati saat bekerja
4.	House Keeping	fastener berserakan	4.1 Kelompakkan & rapikan fastener 4.2 Pastikan fastener bersih saat dilepaslankan

